



ANALYTICAL REPORT

Lab Number:	L1417111
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Taeko Minegishi
Phone:	(781) 247-4300
Project Name:	Not Specified
Project Number:	19374
Report Date:	08/07/14

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508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: Not Specified
Project Number: 19374

Lab Number: L1417111
Report Date: 08/07/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1417111-01	154923	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-02	154924	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-03	154925	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-04	154926	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-05	154927	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-06	154928	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-07	154929	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-08	154930	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-09	154931	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-10	154932	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-11	154933	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-12	154934	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-13	154935	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-14	154936	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-15	154937	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-16	154938	SOLID	Not Specified	07/30/14 00:00	07/31/14
L1417111-17	154939	SOLID	Not Specified	07/30/14 00:00	07/31/14

Project Name: Not Specified
Project Number: 19374

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Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: Not Specified
Project Number: 19374

Lab Number: L1417111
Report Date: 08/07/14

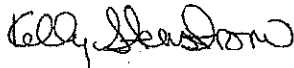
Case Narrative (continued)

PCBs

L1417111-01, -03, -06, -07, -09, and -16: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene and decachlorobiphenyl (all 0%) due to the dilutions required to quantitate the samples. Re-extraction was not required; therefore, the results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 08/07/14

ORGANICS

PCBS

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-01 D
 Client ID: 154923
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/05/14 07:34
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 08/01/14 08:24
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	4460000	--	1000	A
Aroclor 1221	ND		ug/kg	4460000	--	1000	A
Aroclor 1232	ND		ug/kg	4460000	--	1000	A
Aroclor 1242	ND		ug/kg	4460000	--	1000	A
Aroclor 1248	ND		ug/kg	4460000	--	1000	A
Aroclor 1254	31700000		ug/kg	4460000	--	1000	B
Aroclor 1260	47100000		ug/kg	4460000	--	1000	B
Aroclor 1262	ND		ug/kg	4460000	--	1000	A
Aroclor 1268	ND		ug/kg	4460000	--	1000	A
PCBs, Total	78800000		ug/kg	4460000	--	1000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-02 D
 Client ID: 154924
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 12:53
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	4330	--	2	A
Aroclor 1221	ND		ug/kg	4330	--	2	A
Aroclor 1232	ND		ug/kg	4330	--	2	A
Aroclor 1242	ND		ug/kg	4330	--	2	B
Aroclor 1248	ND		ug/kg	4330	--	2	A
Aroclor 1254	27900		ug/kg	4330	--	2	B
Aroclor 1260	6080		ug/kg	4330	--	2	B
Aroclor 1262	ND		ug/kg	4330	--	2	A
Aroclor 1268	ND		ug/kg	4330	--	2	A
PCBs, Total	34000		ug/kg	4330	--	2	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		30-150	A
Decachlorobiphenyl	88		30-150	A
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	87		30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-03 D
 Client ID: 154925
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/05/14 07:48
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 08/01/14 08:24
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	4130000	--	1000	A
Aroclor 1221	ND		ug/kg	4130000	--	1000	A
Aroclor 1232	ND		ug/kg	4130000	--	1000	A
Aroclor 1242	ND		ug/kg	4130000	--	1000	A
Aroclor 1248	ND		ug/kg	4130000	--	1000	A
Aroclor 1254	25600000		ug/kg	4130000	--	1000	B
Aroclor 1260	38700000		ug/kg	4130000	--	1000	B
Aroclor 1262	ND		ug/kg	4130000	--	1000	A
Aroclor 1268	ND		ug/kg	4130000	--	1000	A
PCBs, Total	64300000		ug/kg	4130000	--	1000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-04
 Client ID: 154926
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 04:44
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	2190	--	1	A
Aroclor 1221	ND		ug/kg	2190	--	1	A
Aroclor 1232	ND		ug/kg	2190	--	1	A
Aroclor 1242	ND		ug/kg	2190	--	1	B
Aroclor 1248	ND		ug/kg	2190	--	1	A
Aroclor 1254	18800		ug/kg	2190	--	1	A
Aroclor 1260	3470		ug/kg	2190	--	1	A
Aroclor 1262	ND		ug/kg	2190	--	1	A
Aroclor 1268	ND		ug/kg	2190	--	1	A
PCBs, Total	22300		ug/kg	2190	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	79		30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-05
 Client ID: 154927
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 04:58
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	2290	--	1	A
Aroclor 1221	ND		ug/kg	2290	--	1	A
Aroclor 1232	ND		ug/kg	2290	--	1	A
Aroclor 1242	ND		ug/kg	2290	--	1	B
Aroclor 1248	ND		ug/kg	2290	--	1	A
Aroclor 1254	2980		ug/kg	2290	--	1	B
Aroclor 1260	ND		ug/kg	2290	--	1	A
Aroclor 1262	ND		ug/kg	2290	--	1	A
Aroclor 1268	ND		ug/kg	2290	--	1	A
PCBs, Total	2980		ug/kg	2290	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	49		30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-06 D
 Client ID: 154928
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/05/14 08:01
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 08/01/14 08:24
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	1700000	--	500	A
Aroclor 1221	ND		ug/kg	1700000	--	500	A
Aroclor 1232	ND		ug/kg	1700000	--	500	A
Aroclor 1242	ND		ug/kg	1700000	--	500	A
Aroclor 1248	ND		ug/kg	1700000	--	500	A
Aroclor 1254	22500000		ug/kg	1700000	--	500	B
Aroclor 1260	27400000		ug/kg	1700000	--	500	B
Aroclor 1262	ND		ug/kg	1700000	--	500	A
Aroclor 1268	ND		ug/kg	1700000	--	500	A
PCBs, Total	49900000		ug/kg	1700000	--	500	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-07 D
 Client ID: 154929
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/05/14 08:14
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 08/01/14 08:24
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	4500000	--	1000	A
Aroclor 1221	ND		ug/kg	4500000	--	1000	A
Aroclor 1232	ND		ug/kg	4500000	--	1000	A
Aroclor 1242	ND		ug/kg	4500000	--	1000	A
Aroclor 1248	ND		ug/kg	4500000	--	1000	A
Aroclor 1254	30900000		ug/kg	4500000	--	1000	B
Aroclor 1260	37900000		ug/kg	4500000	--	1000	B
Aroclor 1262	ND		ug/kg	4500000	--	1000	A
Aroclor 1268	ND		ug/kg	4500000	--	1000	A
PCBs, Total	68800000		ug/kg	4500000	--	1000	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-08
 Client ID: 154930
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 05:12
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	6410	--	1	A
Aroclor 1221	ND		ug/kg	6410	--	1	A
Aroclor 1232	ND		ug/kg	6410	--	1	A
Aroclor 1242	ND		ug/kg	6410	--	1	A
Aroclor 1248	ND		ug/kg	6410	--	1	A
Aroclor 1254	ND		ug/kg	6410	--	1	B
Aroclor 1260	ND		ug/kg	6410	--	1	A
Aroclor 1262	ND		ug/kg	6410	--	1	A
Aroclor 1268	ND		ug/kg	6410	--	1	A
PCBs, Total	ND		ug/kg	6410	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	84		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	85		30-150	B

Project Name: Not Specified
Project Number: 19374

Serial_No:08071416:09
Lab Number: L1417111
Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-09 D
Client ID: 154931
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 08/05/14 08:28
Analyst: TQ
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
Date Received: 07/31/14
Field Prep: Not Specified
Extraction Method: EPA 3580A
Extraction Date: 08/01/14 08:24
Cleanup Method: EPA 3665A
Cleanup Date: 08/02/14
Cleanup Method: EPA 3660B
Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	1970000	--	500	A
Aroclor 1221	ND		ug/kg	1970000	--	500	A
Aroclor 1232	ND		ug/kg	1970000	--	500	A
Aroclor 1242	ND		ug/kg	1970000	--	500	A
Aroclor 1248	ND		ug/kg	1970000	--	500	A
Aroclor 1254	15000000		ug/kg	1970000	--	500	B
Aroclor 1260	19100000		ug/kg	1970000	--	500	B
Aroclor 1262	ND		ug/kg	1970000	--	500	A
Aroclor 1268	ND		ug/kg	1970000	--	500	A
PCBs, Total	34100000		ug/kg	1970000	--	500	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-10
 Client ID: 154932
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 05:25
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	2450	--	1	A
Aroclor 1221	ND		ug/kg	2450	--	1	A
Aroclor 1232	ND		ug/kg	2450	--	1	A
Aroclor 1242	ND		ug/kg	2450	--	1	A
Aroclor 1248	ND		ug/kg	2450	--	1	A
Aroclor 1254	ND		ug/kg	2450	--	1	A
Aroclor 1260	ND		ug/kg	2450	--	1	A
Aroclor 1262	ND		ug/kg	2450	--	1	A
Aroclor 1268	ND		ug/kg	2450	--	1	A
PCBs, Total	ND		ug/kg	2450	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	84		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	81		30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-11
 Client ID: 154933
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 05:39
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	1890	--	1	A
Aroclor 1221	ND		ug/kg	1890	--	1	A
Aroclor 1232	ND		ug/kg	1890	--	1	A
Aroclor 1242	ND		ug/kg	1890	--	1	A
Aroclor 1248	ND		ug/kg	1890	--	1	A
Aroclor 1254	ND		ug/kg	1890	--	1	A
Aroclor 1260	ND		ug/kg	1890	--	1	A
Aroclor 1262	ND		ug/kg	1890	--	1	A
Aroclor 1268	ND		ug/kg	1890	--	1	A
PCBs, Total	ND		ug/kg	1890	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	82		30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-12
 Client ID: 154934
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 05:53
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	2380	--	1	A
Aroclor 1221	ND		ug/kg	2380	--	1	A
Aroclor 1232	ND		ug/kg	2380	--	1	A
Aroclor 1242	ND		ug/kg	2380	--	1	A
Aroclor 1248	ND		ug/kg	2380	--	1	A
Aroclor 1254	ND		ug/kg	2380	--	1	A
Aroclor 1260	ND		ug/kg	2380	--	1	A
Aroclor 1262	ND		ug/kg	2380	--	1	A
Aroclor 1268	ND		ug/kg	2380	--	1	A
PCBs, Total	ND		ug/kg	2380	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	76		30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-13
 Client ID: 154935
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 06:07
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	2180	--	1	A
Aroclor 1221	ND		ug/kg	2180	--	1	A
Aroclor 1232	ND		ug/kg	2180	--	1	A
Aroclor 1242	ND		ug/kg	2180	--	1	A
Aroclor 1248	ND		ug/kg	2180	--	1	A
Aroclor 1254	ND		ug/kg	2180	--	1	A
Aroclor 1260	ND		ug/kg	2180	--	1	A
Aroclor 1262	ND		ug/kg	2180	--	1	A
Aroclor 1268	ND		ug/kg	2180	--	1	A
PCBs, Total	ND		ug/kg	2180	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	61		30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-14
 Client ID: 154936
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 06:20
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	2450	--	1	A
Aroclor 1221	ND		ug/kg	2450	--	1	A
Aroclor 1232	ND		ug/kg	2450	--	1	A
Aroclor 1242	ND		ug/kg	2450	--	1	A
Aroclor 1248	ND		ug/kg	2450	--	1	A
Aroclor 1254	ND		ug/kg	2450	--	1	A
Aroclor 1260	ND		ug/kg	2450	--	1	A
Aroclor 1262	ND		ug/kg	2450	--	1	A
Aroclor 1268	ND		ug/kg	2450	--	1	A
PCBs, Total	ND		ug/kg	2450	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: Not Specified
Project Number: 19374

Serial_No:08071416:09
Lab Number: L1417111
Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-15
Client ID: 154937
Sample Location: Not Specified
Matrix: Solid
Analytical Method: 1,8082A
Analytical Date: 08/07/14 06:34
Analyst: TQ
Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
Date Received: 07/31/14
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 08/05/14 14:26
Cleanup Method: EPA 3630
Cleanup Date: 08/06/14
Cleanup Method: EPA 3665A
Cleanup Date: 08/06/14
Cleanup Method: EPA 3660B
Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	2140	--	1	A
Aroclor 1221	ND		ug/kg	2140	--	1	A
Aroclor 1232	ND		ug/kg	2140	--	1	A
Aroclor 1242	ND		ug/kg	2140	--	1	A
Aroclor 1248	ND		ug/kg	2140	--	1	A
Aroclor 1254	ND		ug/kg	2140	--	1	A
Aroclor 1260	ND		ug/kg	2140	--	1	A
Aroclor 1262	ND		ug/kg	2140	--	1	A
Aroclor 1268	ND		ug/kg	2140	--	1	A
PCBs, Total	ND		ug/kg	2140	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	87		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	85		30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-16 D
 Client ID: 154938
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/05/14 08:41
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3580A
 Extraction Date: 08/01/14 08:24
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	1880000	--	500	A
Aroclor 1221	ND		ug/kg	1880000	--	500	A
Aroclor 1232	ND		ug/kg	1880000	--	500	A
Aroclor 1242	ND		ug/kg	1880000	--	500	A
Aroclor 1248	ND		ug/kg	1880000	--	500	A
Aroclor 1254	24500000		ug/kg	1880000	--	500	B
Aroclor 1260	28800000		ug/kg	1880000	--	500	B
Aroclor 1262	ND		ug/kg	1880000	--	500	A
Aroclor 1268	ND		ug/kg	1880000	--	500	A
PCBs, Total	53300000		ug/kg	1880000	--	500	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417111-17
 Client ID: 154939
 Sample Location: Not Specified
 Matrix: Solid
 Analytical Method: 1,8082A
 Analytical Date: 08/07/14 06:47
 Analyst: TQ
 Percent Solids: Results reported on an 'AS RECEIVED' basis.

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/05/14 14:26
 Cleanup Method: EPA 3630
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/06/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	2480	--	1	A
Aroclor 1221	ND		ug/kg	2480	--	1	A
Aroclor 1232	ND		ug/kg	2480	--	1	A
Aroclor 1242	ND		ug/kg	2480	--	1	A
Aroclor 1248	ND		ug/kg	2480	--	1	A
Aroclor 1254	ND		ug/kg	2480	--	1	A
Aroclor 1260	ND		ug/kg	2480	--	1	A
Aroclor 1262	ND		ug/kg	2480	--	1	A
Aroclor 1268	ND		ug/kg	2480	--	1	A
PCBs, Total	ND		ug/kg	2480	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	35		30-150	A
Decachlorobiphenyl	29	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	35		30-150	B
Decachlorobiphenyl	34		30-150	B

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 08/04/14 01:56
 Analyst: TQ

Extraction Method: EPA 3580A
 Extraction Date: 08/01/14 08:24

Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
PCB by GC - Westborough Lab for sample(s): 01,03,06-07,09,16 Batch: WG710506-1						
Aroclor 1016	ND		ug/kg	2580	--	A
Aroclor 1221	ND		ug/kg	2580	--	A
Aroclor 1232	ND		ug/kg	2580	--	A
Aroclor 1242	ND		ug/kg	2580	--	A
Aroclor 1248	ND		ug/kg	2580	--	A
Aroclor 1254	ND		ug/kg	2580	--	A
Aroclor 1260	ND		ug/kg	2580	--	A
Aroclor 1262	ND		ug/kg	2580	--	A
Aroclor 1268	ND		ug/kg	2580	--	A
PCBs, Total	ND		ug/kg	2580	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	123		30-150	A
Decachlorobiphenyl	135		30-150	A
2,4,5,6-Tetrachloro-m-xylene	112		30-150	B
Decachlorobiphenyl	129		30-150	B

Project Name: Not Specified
Project Number: 19374

Lab Number: L1417111
Report Date: 08/07/14

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 08/07/14 07:01
Analyst: TQ

Extraction Method: EPA 3540C
Extraction Date: 08/05/14 14:26
Cleanup Method: EPA 3630
Cleanup Date: 08/06/14
Cleanup Method: EPA 3665A
Cleanup Date: 08/06/14
Cleanup Method: EPA 3660B
Cleanup Date: 08/06/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
PCB by GC - Westborough Lab for sample(s): 02,04-05,08,10-15,17 Batch: WG711338-1						
Aroclor 1016	ND		ug/kg	2040	--	A
Aroclor 1221	ND		ug/kg	2040	--	A
Aroclor 1232	ND		ug/kg	2040	--	A
Aroclor 1242	ND		ug/kg	2040	--	A
Aroclor 1248	ND		ug/kg	2040	--	A
Aroclor 1254	ND		ug/kg	2040	--	A
Aroclor 1260	ND		ug/kg	2040	--	A
Aroclor 1262	ND		ug/kg	2040	--	A
Aroclor 1268	ND		ug/kg	2040	--	A
PCBs, Total	ND		ug/kg	2040	--	A

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	70		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 19374

Lab Number: L1417111

Report Date: 08/07/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
PCB by GC - Westborough Lab Associated sample(s): 01,03,06-07,09,16 Batch: WG710506-2 WG710506-3									
Aroclor 1016	105		109		40-140	4		50	A
Aroclor 1260	105		114		40-140	8		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	121		132		30-150	A
Decachlorobiphenyl	135		149		30-150	A
2,4,5,6-Tetrachloro-m-xylene	112		122		30-150	B
Decachlorobiphenyl	126		136		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
PCB by GC - Westborough Lab Associated sample(s): 02,04-05,08,10-15,17 Batch: WG711338-2 WG711338-3									
Aroclor 1016	91		87		40-140	4		50	A
Aroclor 1260	105		99		40-140	6		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	99		93		30-150	A
Decachlorobiphenyl	98		91		30-150	A
2,4,5,6-Tetrachloro-m-xylene	91		86		30-150	B
Decachlorobiphenyl	94		87		30-150	B

Project Name: Not Specified
Project Number: 19374

Serial_No:08071416:09
Lab Number: L1417111
Report Date: 08/07/14

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1417111-01A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-02A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-03A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-04A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-05A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-06A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-07A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-08A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-09A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-10A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-11A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-12A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-13A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-14A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-15A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-16A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)
L1417111-17A	Amber 120ml unpreserved	A	N/A	2.0	Y	Absent	PCB-8082-CAULK(14)

*Values in parentheses indicate holding time in days

Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e., co-elution) with non-target compound(s). The result should be considered estimated.

Report Format: Data Usability Report



Project Name: Not Specified

Lab Number: L1417111

Project Number: 19374

Report Date: 08/07/14

Data Qualifiers

- H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I - The lower value for the two columns has been reported due to obvious interference.
- M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R - Analytical results are from sample re-analysis.
- RE - Analytical results are from sample re-extraction.
- S - Analytical results are from modified screening analysis.
- J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name: Not Specified
Project Number: 19374

Lab Number: L1417111
Report Date: 08/07/14

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury; **EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO₃-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.

Non-Potable Water

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, V, Zn;

EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC,

SM426C, SM4500NH₃-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO₃-F,**

EPA 353.2: Nitrate-N, **SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4,**

SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,

Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Environmental
Health &
Engineering, Inc.

CHAIN OF CUSTODY FORM

L1417811 No:08071416:09

DATE: 7/30/14

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Alpha Analytical

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project #

19374

The cost of this analysis will be covered by EH&E Purchase Order #

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
154923	BULK	EPA 8082 PCB soxhlet	7/30/14
154924		extraction	
154925			
154926			
154927			
154928			
154929			
154930			
154931			
154932			
154933			
154934			
154935			
154936			
154937			
154938			

Special Instructions:

☒ Standard turn around time

☐ Rush by _____
date/time

☐ Other _____

☐ Fax results 781-247-4305

☐ RETURN SAMPLES

☒ Electronic transfer - datacoordinator@ehinc.com

☒ Additional report recipient

tminegishi@ehinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc.

Date: 7/30/14

Received by: [Signature] - Alpha of (company name) Alpha

Date: 7/31/14 922

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 1 of 2

Environmental
Health &
Engineering, Inc.

CHAIN OF CUSTODY FORM

Lab # 108071416:09

DATE: 7/30/14

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Alpha Analytical

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 19374

The cost of this analysis will be covered by EH&E Purchase Order #

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
154939	BULK	EPA 8082 PCB soxhlet extraction	7/30/14

Special Instructions:

- ☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____
☐ Fax results 781-247-4305
☐ RETURN SAMPLES ☒ Electronic transfer - datacoordinator@ehinc.com
☒ Additional report recipient tminezishi@ehinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 7/30/14
Received by: [Signature] of (company name) Alpha Date: 7/31/14 922
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page 2 of 2

APPENDIX C
AIR SAMPLE LABORATORY REPORTS



ANALYTICAL REPORT

Lab Number:	L1417001
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Taeko Minegishi
Phone:	(781) 247-4300
Project Name:	19374
Project Number:	19374
Report Date:	08/04/14

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: NY (11627), CT (PH-0141), NH (2206), NJ NELAP (MA015), RI (LAO00299), PA (68-02089), LA NELAP (03090), FL (E87814), TX (T104704419), WA (C954), DOD (L2217.01), USDA (Permit #P330-11-00109), US Army Corps of Engineers.

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: 19374
Project Number: 19374

Lab Number: L1417001
Report Date: 08/04/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1417001-01	154898	AIR MEDIA	Not Specified		07/30/14
L1417001-02	154901	AIR MEDIA	Not Specified		07/30/14
L1417001-03	154902	AIR MEDIA	Not Specified		07/30/14
L1417001-04	154903	AIR MEDIA	Not Specified		07/30/14
L1417001-05	154904	AIR MEDIA	Not Specified		07/30/14
L1417001-06	154905	AIR MEDIA	Not Specified		07/30/14
L1417001-07	154907	AIR MEDIA	Not Specified		07/30/14
L1417001-08	154908	AIR MEDIA	Not Specified		07/30/14

Project Name: 19374
Project Number: 19374

Lab Number: L1417001
Report Date: 08/04/14

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

Case Narrative (continued)


PCBs in Air

Sample L1417001-01 had a non-target peak removed from the range of the Trichlorobiphenyl result.

The WG709972-2 LCS recovery for Cl2-BZ#4/#10 (154%), associated with L1417001-01 through -08, is outside the acceptance criteria for individual target compounds, but within the overall method allowances.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Elizabeth Porta

Title: Technical Director/Representative

Date: 08/04/14

ORGANICS

PCBS

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

SAMPLE RESULTS

Lab ID: L1417001-01
 Client ID: 154898
 Sample Location: Not Specified
 Matrix: Air Media
 Analytical Method: 105,8270D-SIM/NOAA-M
 Analytical Date: 08/01/14 01:31
 Analyst: CM

Date Collected:
 Date Received: 07/30/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 07/30/14 17:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	25.6		ng/cart	10.0	--	1
Tetrachlorobiphenyls	92.4		ng/cart	10.0	--	1
Pentachlorobiphenyls	117		ng/cart	10.0	--	1
Hexachlorobiphenyls	60.0		ng/cart	10.0	--	1
Heptachlorobiphenyls	27.4		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	322		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	103		50-125
Cl8-BZ#202-C13	99		50-125

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

SAMPLE RESULTS

Lab ID: L1417001-02
 Client ID: 154901
 Sample Location: Not Specified
 Matrix: Air Media
 Analytical Method: 105,8270D-SIM/NOAA-M
 Analytical Date: 08/01/14 02:45
 Analyst: CM

Date Collected:
 Date Received: 07/30/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 07/30/14 17:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	ND		ng/cart	10.0	--	1
Tetrachlorobiphenyls	15.0		ng/cart	10.0	--	1
Pentachlorobiphenyls	ND		ng/cart	10.0	--	1
Hexachlorobiphenyls	ND		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	15.0		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	102		50-125
Cl8-BZ#202-C13	95		50-125

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

SAMPLE RESULTS

Lab ID: L1417001-03
 Client ID: 154902
 Sample Location: Not Specified
 Matrix: Air Media
 Analytical Method: 105.8270D-SIM/NOAA-M
 Analytical Date: 08/01/14 03:59
 Analyst: CM

Date Collected:
 Date Received: 07/30/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 07/30/14 17:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	18.9		ng/cart	10.0	--	1
Tetrachlorobiphenyls	31.5		ng/cart	10.0	--	1
Pentachlorobiphenyls	17.5		ng/cart	10.0	--	1
Hexachlorobiphenyls	12.5		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	80.4		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	96		50-125
Cl8-BZ#202-C13	93		50-125

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

SAMPLE RESULTS

Lab ID: L1417001-04
 Client ID: 154903
 Sample Location: Not Specified
 Matrix: Air Media
 Analytical Method: 105,8270D-SIM/NOAA-M
 Analytical Date: 08/01/14 05:12
 Analyst: CM

Date Collected:
 Date Received: 07/30/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 07/30/14 17:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	ND		ng/cart	10.0	--	1
Tetrachlorobiphenyls	ND		ng/cart	10.0	--	1
Pentachlorobiphenyls	ND		ng/cart	10.0	--	1
Hexachlorobiphenyls	ND		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	ND		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	103		50-125
Cl8-BZ#202-C13	97		50-125

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

SAMPLE RESULTS

Lab ID: L1417001-05
 Client ID: 154904
 Sample Location: Not Specified
 Matrix: Air Media
 Analytical Method: 105.8270D-SIM/NOAA-M
 Analytical Date: 08/01/14 06:26
 Analyst: CM

Date Collected:
 Date Received: 07/30/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 07/30/14 17:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	ND		ng/cart	10.0	--	1
Tetrachlorobiphenyls	ND		ng/cart	10.0	--	1
Pentachlorobiphenyls	ND		ng/cart	10.0	--	1
Hexachlorobiphenyls	ND		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	ND		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	100		50-125
Cl8-BZ#202-C13	104		50-125

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

SAMPLE RESULTS

Lab ID: L1417001-06
 Client ID: 154905
 Sample Location: Not Specified
 Matrix: Air Media
 Analytical Method: 105,8270D-SIM/NOAA-M
 Analytical Date: 08/01/14 07:40
 Analyst: CM

Date Collected:
 Date Received: 07/30/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 07/30/14 17:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	ND		ng/cart	10.0	--	1
Tetrachlorobiphenyls	ND		ng/cart	10.0	--	1
Pentachlorobiphenyls	ND		ng/cart	10.0	--	1
Hexachlorobiphenyls	ND		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	ND		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	106		50-125
Cl8-BZ#202-C13	100		50-125

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

SAMPLE RESULTS

Lab ID: L1417001-07
 Client ID: 154907
 Sample Location: Not Specified
 Matrix: Air Media
 Analytical Method: 105.8270D-SIM/NOAA-M
 Analytical Date: 08/01/14 08:53
 Analyst: CM

Date Collected:
 Date Received: 07/30/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 07/30/14 17:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	ND		ng/cart	10.0	--	1
Tetrachlorobiphenyls	ND		ng/cart	10.0	--	1
Pentachlorobiphenyls	ND		ng/cart	10.0	--	1
Hexachlorobiphenyls	ND		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	ND		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	106		50-125
Cl8-BZ#202-C13	103		50-125

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

SAMPLE RESULTS

Lab ID: L1417001-08
 Client ID: 154908
 Sample Location: Not Specified
 Matrix: Air Media
 Analytical Method: 105,8270D-SIM/NOAA-M
 Analytical Date: 08/01/14 10:07
 Analyst: CM

Date Collected:
 Date Received: 07/30/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 07/30/14 17:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab						
Monochlorobiphenyls	ND		ng/cart	10.0	--	1
Dichlorobiphenyls	ND		ng/cart	10.0	--	1
Trichlorobiphenyls	ND		ng/cart	10.0	--	1
Tetrachlorobiphenyls	ND		ng/cart	10.0	--	1
Pentachlorobiphenyls	ND		ng/cart	10.0	--	1
Hexachlorobiphenyls	ND		ng/cart	10.0	--	1
Heptachlorobiphenyls	ND		ng/cart	10.0	--	1
Octachlorobiphenyls	ND		ng/cart	10.0	--	1
Nonachlorobiphenyls	ND		ng/cart	10.0	--	1
Decachlorobiphenyl	ND		ng/cart	10.0	--	1
Total Homologs	ND		ng/cart	10.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	106		50-125
Cl8-BZ#202-C13	103		50-125

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

Method Blank Analysis Batch Quality Control

Analytical Method: 105,8270D-SIM/NOAA-M

Analytical Date: 07/31/14 15:52

Analyst: CM

Extraction Method: EPA 3540C

Extraction Date: 07/30/14 17:25

Parameter	Result	Qualifier	Units	RL	MDL
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab for sample(s): 01-08 Batch: WG709972-1					
Monochlorobiphenyls	ND		ng/cart	10.0	--
Dichlorobiphenyls	ND		ng/cart	10.0	--
Trichlorobiphenyls	ND		ng/cart	10.0	--
Tetrachlorobiphenyls	ND		ng/cart	10.0	--
Pentachlorobiphenyls	ND		ng/cart	10.0	--
Hexachlorobiphenyls	ND		ng/cart	10.0	--
Heptachlorobiphenyls	ND		ng/cart	10.0	--
Octachlorobiphenyls	ND		ng/cart	10.0	--
Nonachlorobiphenyls	ND		ng/cart	10.0	--
Decachlorobiphenyl	ND		ng/cart	10.0	--
Total Homologs	ND		ng/cart	10.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Cl3-BZ#19-C13	102		50-125
Cl8-BZ#202-C13	98		50-125

Lab Control Sample Analysis Batch Quality Control

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab Associated sample(s): 01-08 Batch: WG709972-2								
Cl1-BZ#1	126		-		40-140	-		30
CL1-BZ#3	124		-		40-140	-		30
Cl2-BZ#4/#10	154	Q	-		40-140	-		30
Cl2-BZ#8	127		-		40-140	-		30
Cl3-BZ#19	122		-		40-140	-		30
Cl3-BZ#18	115		-		40-140	-		30
Cl2-BZ#15	109		-		40-140	-		30
Cl4-BZ#54	124		-		40-140	-		30
Cl3-BZ#29	113		-		40-140	-		30
Cl4-BZ#50	112		-		40-140	-		30
Cl3-BZ#31	123		-		40-140	-		30
Cl3-BZ#28	113		-		40-140	-		30
Cl4-BZ#45	129		-		40-140	-		30
Cl4-BZ#52	114		-		40-140	-		30
Cl4-BZ#49	119		-		40-140	-		30
Cl5-BZ#104	132		-		40-140	-		30
Cl4-BZ#47	111		-		40-140	-		30
Cl4-BZ#44	115		-		40-140	-		30
Cl3-BZ#37	69		-		40-140	-		30
Cl5-BZ#121/#95/#88	94		-		40-140	-		30
Cl4-BZ#74	104		-		40-140	-		30

Lab Control Sample Analysis Batch Quality Control

Project Name: 19374

Project Number: 19374

Lab Number: L1417001

Report Date: 08/04/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab Associated sample(s): 01-08 Batch: WG709972-2								
Cl6-BZ#155	111	-	-	-	40-140	-	-	30
Cl4-BZ#70	104	-	-	-	40-140	-	-	30
Cl4-BZ#66	115	-	-	-	40-140	-	-	30
Cl5-BZ#101/#90	108	-	-	-	40-140	-	-	30
Cl4-BZ#56	108	-	-	-	40-140	-	-	30
Cl5-BZ#99	108	-	-	-	40-140	-	-	30
Cl5-BZ#87/#111	90	-	-	-	40-140	-	-	30
Cl6-BZ#154	107	-	-	-	40-140	-	-	30
Cl5-BZ#110	112	-	-	-	40-140	-	-	30
Cl4-BZ#81	102	-	-	-	40-140	-	-	30
Cl6-BZ#151	112	-	-	-	40-140	-	-	30
Cl6-BZ#147/#149	122	-	-	-	40-140	-	-	30
Cl4-BZ#77	117	-	-	-	40-140	-	-	30
Cl5-BZ#107/#123	130	-	-	-	40-140	-	-	30
Cl7-BZ#188	106	-	-	-	40-140	-	-	30
Cl5-BZ#118	103	-	-	-	40-140	-	-	30
Cl6-BZ#146	100	-	-	-	40-140	-	-	30
Cl5-BZ#114	110	-	-	-	40-140	-	-	30
Cl6-BZ#153	125	-	-	-	40-140	-	-	30
Cl5-BZ#105	84	-	-	-	40-140	-	-	30
Cl6-BZ#138	101	-	-	-	40-140	-	-	30

Lab Control Sample Analysis**Batch Quality Control**

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab Associated sample(s): 01-08 Batch: WG709972-2								
Cl6-BZ#129/#158	129		-		40-140	-		30
Cl7-BZ#187	114		-		40-140	-		30
Cl7-BZ#183	114		-		40-140	-		30
Cl5-BZ#126	70		-		40-140	-		30
Cl7-BZ#174	115		-		40-140	-		30
Cl6-BZ#128	110		-		40-140	-		30
Cl6-BZ#167	128		-		40-140	-		30
Cl8-BZ#202	131		-		40-140	-		30
Cl7-BZ#177	106		-		40-140	-		30
Cl8-BZ#204/#200-CAL	112		-		40-140	-		30
Cl6-BZ#156	106		-		40-140	-		30
Cl6-BZ#157	110		-		40-140	-		30
Cl7-BZ#180	104		-		40-140	-		30
Cl8-BZ#201	110		-		40-140	-		30
Cl7-BZ#170	110		-		40-140	-		30
Cl6-BZ#169	89		-		40-140	-		30
Cl9-BZ#208	107		-		40-140	-		30
Cl7-BZ#189	106		-		40-140	-		30
Cl8-BZ#195	100		-		40-140	-		30
Cl8-BZ#194	98		-		40-140	-		30
Cl8-BZ#205	98		-		40-140	-		30

Lab Control Sample Analysis Batch Quality Control

Project Name: 19374

Project Number: 19374

Lab Number: L1417001

Report Date: 08/04/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Homologs by GC/MS-SIM (LowVol) - Mansfield Lab Associated sample(s): 01-08 Batch: WG709972-2								
Cl9-BZ#206	95		-		40-140	-		30
Cl10-BZ#209	104		-		40-140	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Cl3-BZ#19-C13	108				50-125
Cl8-BZ#202-C13	105				50-125

Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1417001-01A	PUF Air Cartridge (PCB) - Low	A	N/A	2.9	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1417001-02A	PUF Air Cartridge (PCB) - Low	A	N/A	2.9	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1417001-03A	PUF Air Cartridge (PCB) - Low	A	N/A	2.9	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1417001-04A	PUF Air Cartridge (PCB) - Low	A	N/A	2.9	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1417001-05A	PUF Air Cartridge (PCB) - Low	A	N/A	2.9	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1417001-06A	PUF Air Cartridge (PCB) - Low	A	N/A	2.9	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1417001-07A	PUF Air Cartridge (PCB) - Low	A	N/A	2.9	Y	Absent	A2-PCBHOMS-8270SIML(7)
L1417001-08A	PUF Air Cartridge (PCB) - Low	A	N/A	2.9	Y	Absent	A2-PCBHOMS-8270SIML(7)

*Values in parentheses indicate holding time in days



Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A - Spectra identified as "Aldol Condensation Product".
- B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.

Report Format: Data Usability Report



Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

Data Qualifiers

- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name: 19374

Lab Number: L1417001

Project Number: 19374

Report Date: 08/04/14

REFERENCES

- 105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO₃-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, V, Zn;

EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH₃-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO₃-F,**

EPA 353.2: Nitrate-N, **SM4500NH₃-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Environmental
Health &
Engineering, Inc.

CHAIN OF CUSTODY FORM

Serial No: 08041420417001

DATE: 7/29/14

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Alpha Analytical

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 19374

The cost of this analysis will be covered by EH&E Purchase Order #

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
01-01 154897	AIR	PcB Homolog Analysis	1314.9L
01-02 154898			1339.5
01-03 154899			1327.6
01-04 154900			1329.0
02-05 154901			1312.4
03-06 154902			1292.1
04-07 154903			1278.7
05-08 154904			1335.7
06-09 154905			1340.9
07-10 154906			1265.9
07-11 154907			0
08-12 154908			0

Special Instructions:

☐ Standard turn around time

☐ Rush by _____ date/time

☒ Other Will call 7/30 morning

☐ Fax results 781-247-4305

☐ RETURN SAMPLES

☒ Electronic transfer - datacoordinator@ehinc.com

☒ Additional report recipient tminegishi@ehinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc.

Date: 7/29/14 via FedEx

Received by: [Signature] of (company name) Alpha

Date: 7/30/14 11:00

Relinquished by: _____ of (company name)

Date: _____

Received by: _____ of (company name)

Date: _____

Relinquished by: _____ of (company name)

Date: _____

Received by: _____ of (company name)

Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc.

Date: _____

Page 1 of 1

Environmental
Health &
Engineering, Inc.

CHAIN OF CUSTODY FORM

Serial_No:08041420371001

DATE:

7/29/14

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Alpha Analytical

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project #

19374

The cost of this analysis will be covered by EH&E Purchase Order #

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
154897	AIR	PcB Homolog Analysis	1314.9L
154898			1339.5
154899			1327.6
154900			1329.0
154901			1312.4
154902			1292.1
154903			1278.7
154904			1335.7
154905			1340.9
154906			1265.9
154907			0
154908			0

Special Instructions:

☐ Standard turn around time

☐ Rush by _____ date/time

☒ Other Will call 7/30 morning

☐ Fax results 781-247-4305

☐ RETURN SAMPLES

☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient tminegishi@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc.

Date: 7/29/14

Received by: [Signature] of (company name) Alpha

Date: 7/30/14 11:00

Relinquished by: _____ of (company name) _____

Date: _____

Received by: _____ of (company name) _____

Date: _____

Relinquished by: _____ of (company name) _____

Date: _____

Received by: _____ of (company name) _____

Date: _____

Lab Data

Received by: _____ of Environmental Health & Engineering, Inc.

Date: _____

Page 1 of 1

APPENDIX D
WIPE SAMPLE LABORATORY REPORT



ANALYTICAL REPORT

Lab Number:	L1417106
Client:	Environmental Health & Engineering Inc. 117 Fourth Ave Needham, MA 02494
ATTN:	Taeko Minegishi
Phone:	(781) 247-4300
Project Name:	Not Specified
Project Number:	19374
Report Date:	08/07/14

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: Not Specified
Project Number: 19374

Lab Number: L1417106
Report Date: 08/07/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1417106-01	154909	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-02	154911	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-03	154912	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-04	154913	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-05	154914	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-06	154915	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-07	154916	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-08	154917	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-09	154918	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-10	154919	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-11	154920	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-12	154921	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-13	154922	WIPE	Not Specified	07/30/14 00:00	07/31/14
L1417106-14	154910	WIPE	Not Specified	07/30/14 00:00	07/31/14

Project Name: Not Specified
Project Number: 19374

Lab Number: L1417106
Report Date: 08/07/14

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: Not Specified
Project Number: 19374

Lab Number: L1417106
Report Date: 08/07/14

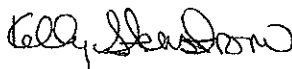
Case Narrative (continued)

PCBs

The WG710449-1 Method Blank, associated with L1417106-01 through -14, has a concentration above the reporting limit for aroclor 1254. Since the samples were non-detect for this target analyte, no further actions were taken. The results of the original analysis are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Kelly Stenstrom

Title: Technical Director/Representative

Date: 08/07/14

ORGANICS

PCBS

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-01
 Client ID: 154909
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 12:02
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: Not Specified
Project Number: 19374

Serial_No:08071414:28
Lab Number: L1417106
Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-02
Client ID: 154911
Sample Location: Not Specified
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 08/04/14 12:15
Analyst: JT

Date Collected: 07/30/14 00:00
Date Received: 07/31/14
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 08/01/14 01:22
Cleanup Method: EPA 3665A
Cleanup Date: 08/02/14
Cleanup Method: EPA 3660B
Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-03
 Client ID: 154912
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 12:28
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	64		30-150	B

Project Name: Not Specified
Project Number: 19374

Serial_No:08071414:28
Lab Number: L1417106
Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-04
Client ID: 154913
Sample Location: Not Specified
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 08/04/14 12:42
Analyst: JT

Date Collected: 07/30/14 00:00
Date Received: 07/31/14
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 08/01/14 01:22
Cleanup Method: EPA 3665A
Cleanup Date: 08/02/14
Cleanup Method: EPA 3660B
Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	64		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-05
 Client ID: 154914
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 12:55
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	82		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-06
 Client ID: 154915
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 13:08
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	74		30-150	B

Project Name: Not Specified
Project Number: 19374

Serial_No:08071414:28
Lab Number: L1417106
Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-07
Client ID: 154916
Sample Location: Not Specified
Matrix: Wipe
Analytical Method: 1,8082A
Analytical Date: 08/04/14 13:22
Analyst: JT

Date Collected: 07/30/14 00:00
Date Received: 07/31/14
Field Prep: Not Specified
Extraction Method: EPA 3540C
Extraction Date: 08/01/14 01:22
Cleanup Method: EPA 3665A
Cleanup Date: 08/02/14
Cleanup Method: EPA 3660B
Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-08
 Client ID: 154917
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 13:35
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	55		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-09
 Client ID: 154918
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 13:48
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	43		30-150	A
Decachlorobiphenyl	43		30-150	A
2,4,5,6-Tetrachloro-m-xylene	44		30-150	B
Decachlorobiphenyl	51		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-10
 Client ID: 154919
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 14:02
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-11
 Client ID: 154920
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 14:15
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	74		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-12
 Client ID: 154921
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 14:28
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	78		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-13
 Client ID: 154922
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 14:42
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	72		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

SAMPLE RESULTS

Lab ID: L1417106-14
 Client ID: 154910
 Sample Location: Not Specified
 Matrix: Wipe
 Analytical Method: 1,8082A
 Analytical Date: 08/04/14 14:55
 Analyst: JT

Date Collected: 07/30/14 00:00
 Date Received: 07/31/14
 Field Prep: Not Specified
 Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
PCB by GC - Westborough Lab							
Aroclor 1016	ND		ug Abs	0.500	--	1	A
Aroclor 1221	ND		ug Abs	0.500	--	1	A
Aroclor 1232	ND		ug Abs	0.500	--	1	A
Aroclor 1242	ND		ug Abs	0.500	--	1	A
Aroclor 1248	ND		ug Abs	0.500	--	1	A
Aroclor 1254	ND		ug Abs	0.500	--	1	A
Aroclor 1260	ND		ug Abs	0.500	--	1	A
Aroclor 1262	ND		ug Abs	0.500	--	1	A
Aroclor 1268	ND		ug Abs	0.500	--	1	A
PCBs, Total	ND		ug Abs	0.500	--	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 08/04/14 15:08
 Analyst: JT

Extraction Method: EPA 3540C
 Extraction Date: 08/01/14 01:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 08/02/14
 Cleanup Method: EPA 3660B
 Cleanup Date: 08/02/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
PCB by GC - Westborough Lab for sample(s): 01-14 Batch: WG710449-1						
Aroclor 1016	ND		ug Abs	0.500	--	A
Aroclor 1221	ND		ug Abs	0.500	--	A
Aroclor 1232	ND		ug Abs	0.500	--	A
Aroclor 1242	ND		ug Abs	0.500	--	A
Aroclor 1248	ND		ug Abs	0.500	--	A
Aroclor 1260	ND		ug Abs	0.500	--	A
Aroclor 1262	ND		ug Abs	0.500	--	A
Aroclor 1268	ND		ug Abs	0.500	--	A
PCBs, Total	0.765		ug Abs	0.500	--	A
Aroclor 1254	0.765		ug Abs	0.500	--	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	67		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: Not Specified

Project Number: 19374

Lab Number: L1417106

Report Date: 08/07/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
PCB by GC - Westborough Lab Associated sample(s): 01-14 Batch: WG710449-2 WG710449-3									
Aroclor 1016	66		61		40-140	8		50	A
Aroclor 1260	59		55		40-140	6		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		56		30-150	A
Decachlorobiphenyl	62		57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		58		30-150	B
Decachlorobiphenyl	74		72		30-150	B

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information Custody Seal

Cooler

A

Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1417106-01A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-02A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-03A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-04A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-05A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-06A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-07A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-08A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-09A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-10A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-11A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-12A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-13A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)
L1417106-14A	Amber 100ml Hexane preserved	A	N/A	4.4	Y	Absent	PCB-8082-3540C(14)

*Values in parentheses indicate holding time in days

Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.

Report Format: Data Usability Report



Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

Data Qualifiers

- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report



Project Name: Not Specified

Lab Number: L1417106

Project Number: 19374

Report Date: 08/07/14

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

Last revised April 15, 2014

The following analytes are not included in our NELAP Scope of Accreditation:

Westborough Facility

EPA 524.2: Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

EPA 8260C: 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

EPA 8330A/B: PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

EPA 8270D: 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA 2540D: TSS

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:

Drinking Water

EPA 200.8: Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Ti; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury; **EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO₃-F:** Nitrate-N, Nitrite-N; **SM4500F-C,** **SM4500CN-CE,** **EPA 180.1,** **SM2130B,** **SM4500CI-D,** **SM2320B,** **SM2540C,** **SM4500H-B**

EPA 332: Perchlorate.

Microbiology: **SM9215B;** **SM9223-P/A,** **SM9223B-Colilert-QT,** **Enterolert-QT.**

Non-Potable Water

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Ti, Zn;

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, V, Zn;

EPA 245.1, **SM4500H-B,** **EPA 120.1,** **SM2510B,** **SM2540C,** **SM2340B,** **SM2320B,** **SM4500CL-E,** **SM4500F-BC,**

SM426C, **SM4500NH₃-BH,** **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO₃-F,**

EPA 353.2: Nitrate-N, **SM4500NH₃-BC-NES,** **EPA 351.1,** **SM4500P-E,** **SM4500P-B,** **E,** **SM5220D,** **EPA 410.4,**

SM5210B, **SM5310C,** **SM4500CL-D,** **EPA 1664,** **SM14 510AC,** **EPA 420.1,** **SM4500-CN-CE,** **SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,

Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT;** **Enterolert-QT,** **SM9222D-MF.**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

CHAIN OF CUSTODY FORM

Serial_No:0807141428
DATE: 7/30/14 2/21/10

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: ALPHA ANALYTICAL

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 19374

The cost of this analysis will be covered by EH&E Purchase Order # _____

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
154909	WIPE	EPA 8082 PCB	7/30/14
154911			100cm ²
154912			100cm ²
154913			
154914			
154915			
154916			
154917			
154918			
154919			
154920			
154921			
154922			
154910			

Special instructions:

- ☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____
☐ Fax results 781-247-4305
☐ RETURN SAMPLES ☒ Electronic transfer - datacoordinator@ehelinc.com
☒ Additional report recipient tminegishi@ehelinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: [Signature] of Environmental Health & Engineering, Inc. Date: 7/30/14
Received by: [Signature] of (company name) Alpha Date: 7/31/14 9:22
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Relinquished by: _____ of (company name) _____ Date: _____
Received by: _____ of (company name) _____ Date: _____
Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page _____ of _____

APPENDIX E

QUALITY ASSURANCE/QUALITY CONTROL PLAN

SITE SPECIFIC CRITERIA

Potential exposure to airborne PCBs shall be controlled to as low as reasonably achievable, and in all cases comply with the public health levels of PCBs in school air provided by the U.S. Environmental Protection Agency (EPA) for elementary school (ages 6 to <12 years; 300 ng/m³; <http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/caulk/pdf/maxconcentrations.pdf>). As the current levels in the school are below the EPA guideline, no further air sampling is proposed for this work.

Potential exposure to PCBs in surface dust shall be controlled to as low as reasonably achievable, and in all cases comply with criterion set forth by the EPA of 10 µg/100 cm² for occupied spaces as well as a more stringent criteria of 1 µg/100 cm² previously stipulated by the EPA Region 1 PCB Coordinator for similar work.

QUALITY ASSURANCE/QUALITY CONTROL

This section describes the quality assurance objectives, measurement criteria, and performance criteria that were/will be employed for this program. The selected analytical test methods for this project will have laboratory quantification limits that are lower than the established project action limits. A laboratory certification letter indicating compliance with the requirements of this plan will be provided under separate cover.

The ultimate objective of this project is to evaluate PCB concentrations in soil, as specified in this plan. The data collected must be of sound quality to support evaluation of site conditions.

The ability of the data to meet the project quality objectives shall be measured using data quality criteria, which include precision, accuracy, representativeness, comparability, completeness, and sensitivity parameters. Laboratory and field sampling activity documentation will be used to assess these parameters. In addition, only certified laboratories shall be used to ensure proper data handling techniques. The acceptance criteria and frequency of measurement of these parameters are summarized in Table E.1.

Table E.1 Quality Assurance and Control for air and wipe samples			
Data Quality Indicators	Measurement Performance Criteria	QC Sample and/or Activity Used to Assess Measurement Performance	Frequency
Precision—Overall	±45%	Field duplicates	Minimum: One per group or 20% of samples
Precision—Laboratory	±45%	1. Matrix spike 2. Matrix spike duplicates	Minimum: One per analysis.
Accuracy/Bias	±45%	1. Matrix spike 2. Matrix spike duplicates	Minimum: One per group
Accuracy/Bias	Acceptable quality control range based on analytical technique	Laboratory control samples	Double column GC Surrogate compound
Accuracy/Bias—Contamination	No target analytes above laboratory quantification limit with the exception of common field/laboratory contaminants	1. Equipment blanks 2. Method blanks	Minimum: One per group
Comparability	Not applicable	Comparability check	Double column GC
Data completeness	90% Overall	Data completeness check	One
Sensitivity	±100%	Low calibration standard	Minimum: One
QC quality control GC gas chromatography			

Surface samples will be analyzed using EPA Method 8082 with extraction performed by EPA Method 3540C. Quality assurance and quality control sampling will include one blank, one duplicate sample.

Precision

Precision is the degree of agreement among repeated measurements of the same characteristic under the same or similar conditions. In general, EH&E collects one duplicate sample for every ten samples collected or 20% of the sample size. No less than one duplicate set is collected, regardless of the sample size. The identity of the duplicate sample(s) is not revealed to the analytical laboratory. The target precision among field duplicates is ±45%, indicating good reproducibility. Because of the low possibility of residual PCBs in the collected samples, EH&E believes that a precision of 45% will be an acceptable indicator for reproducibility. Precision levels greater than 45% will not invalidate the sample data set but will be flagged to caution users about the variability within the data.

Accuracy

Accuracy is the extent of agreement between an observed value (sample result) and the accepted or true value of the parameter being measured. All field equipment are calibrated and maintained to minimize variability. EH&E also observes proper handling and packaging techniques to preserve the integrity of the samples. The appropriate laboratory QC program and analytical method determine acceptable recoveries. The laboratory utilizes spiked samples, reference standards, and blanks to assure accuracy. Recoveries outside the acceptable limits will not invalidate the sample data set; however, the data will be flagged to warn of its reliability.

Representativeness

Representativeness is a qualitative term that describes the extent to which a sampling design adequately reflects the environmental conditions of a site. The samples locations were/will be selected to represent the various field conditions and in the locations most likely to be impacted by building related PCBs.

Reasonableness

All data are evaluated for reasonableness based on existing knowledge of the Aroclor mixtures in building environments. Any data that substantially falls outside these expected levels will be further evaluated for accuracy and additional data collection may be required.

Completeness

Completeness is a measure (percentage) of the amount of valid data obtained meeting the data quality objectives. Valid data are data that are soundly founded as evidenced by the data quality indicators. The acceptable completeness percentage for this project is 90%.

APPENDIX F LIMITATIONS

1. Environmental Health & Engineering, Inc.'s (EH&E) indoor environmental quality assessment described in the attached letter 19374, *Pollock Elementary School, Pollock, Louisiana* (hereafter "the Letter"), was performed in accordance with generally accepted practices employed by other consultants undertaking similar studies at the same time and in the same geographical area; and EH&E observed that degree of care and skill generally exercised by such other consultants under similar circumstances and conditions. The observations described in the Letter were made under the conditions stated therein. The conclusions presented in the Letter were based solely upon the services described therein, and not on scientific tasks or procedures beyond the scope of described services.
2. Observations were made of the site as indicated within the Letter. Where access to portions of the site was unavailable or limited, EH&E renders no opinion as to the condition of that portion of the site.
3. The observations and recommendations contained in the Letter are based on limited environmental sampling and visual observation and were arrived at in accordance with generally accepted standards of industrial hygiene practice. The sampling and observations conducted at the site were limited in scope and, therefore, cannot be considered representative of areas not sampled or observed.
4. When an outside laboratory conducted sample analyses, EH&E relied upon the data provided and did not conduct an independent evaluation of the reliability of these data.
5. The purpose of the Letter was to assess the characteristics of the subject site as stated within the Letter. No specific attempt was made to verify compliance by any party with all federal, state, or local laws and regulations.

Appendix C: Analytical Reports



ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

*The Microbiology Division
of Thielsch Engineering, Inc.*



CERTIFICATE OF ANALYSIS

Ross Hartman
Strategic Environmental Services
362 Putnam Hill Road
Sutton, MA 01590

RE: Pollock Elementary (15-0515)
ESS Laboratory Work Order Number: 1507735

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED

By ESS Laboratory at 1:21 pm, Aug 07, 2015

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

*The Microbiology Division
of Thielsch Engineering, Inc.*



CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507735

SAMPLE RECEIPT

The following samples were received on July 31, 2015 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1507735-01	S-1	Solid	8082A
1507735-02	S-2	Solid	8082A



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BAL Laboratory

*The Microbiology Division
of Thielsch Engineering, Inc.*



CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services

Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507735

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507735

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: S-1
Date Sampled: 07/30/15 13:00
Percent Solids: 99
Initial Volume: 19.3
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507735
ESS Laboratory Sample ID: 1507735-01
Sample Matrix: Solid
Units: mg/kg dry
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.05)		8082A		1	08/05/15 1:46		CH50309
Aroclor 1221	ND (0.05)		8082A		1	08/05/15 1:46		CH50309
Aroclor 1232	ND (0.05)		8082A		1	08/05/15 1:46		CH50309
Aroclor 1242	ND (0.05)		8082A		1	08/05/15 1:46		CH50309
Aroclor 1248	ND (0.05)		8082A		1	08/05/15 1:46		CH50309
Aroclor 1254	ND (0.05)		8082A		1	08/05/15 1:46		CH50309
Aroclor 1260	0.9 (0.05)		8082A		1	08/05/15 1:46		CH50309
Aroclor 1262	ND (0.05)		8082A		1	08/05/15 1:46		CH50309
Aroclor 1268	ND (0.05)		8082A		1	08/05/15 1:46		CH50309

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	70 %		30-150
Surrogate: Decachlorobiphenyl [2C]	65 %		30-150
Surrogate: Tetrachloro-m-xylene	88 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	105 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: S-2
Date Sampled: 07/30/15 13:00
Percent Solids: 92
Initial Volume: 19.7
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507735
ESS Laboratory Sample ID: 1507735-02
Sample Matrix: Solid
Units: mg/kg dry
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.06)		8082A		1	08/05/15 2:05		CH50309
Aroclor 1221	ND (0.06)		8082A		1	08/05/15 2:05		CH50309
Aroclor 1232	ND (0.06)		8082A		1	08/05/15 2:05		CH50309
Aroclor 1242	ND (0.06)		8082A		1	08/05/15 2:05		CH50309
Aroclor 1248	ND (0.06)		8082A		1	08/05/15 2:05		CH50309
Aroclor 1254	ND (0.06)		8082A		1	08/05/15 2:05		CH50309
Aroclor 1260	0.3 (0.06)		8082A		1	08/05/15 2:05		CH50309
Aroclor 1262	ND (0.06)		8082A		1	08/05/15 2:05		CH50309
Aroclor 1268	ND (0.06)		8082A		1	08/05/15 2:05		CH50309

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	77 %		30-150
Surrogate: Decachlorobiphenyl [2C]	77 %		30-150
Surrogate: Tetrachloro-m-xylene	90 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	106 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services

Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507735

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8082A Polychlorinated Biphenyls (PCB)

Batch CH50309 - 3540C

Blank

Aroclor 1016	ND	0.05	mg/kg wet
Aroclor 1221	ND	0.05	mg/kg wet
Aroclor 1232	ND	0.05	mg/kg wet
Aroclor 1242	ND	0.05	mg/kg wet
Aroclor 1248	ND	0.05	mg/kg wet
Aroclor 1254	ND	0.05	mg/kg wet
Aroclor 1260	ND	0.05	mg/kg wet
Aroclor 1262	ND	0.05	mg/kg wet
Aroclor 1268	ND	0.05	mg/kg wet

Surrogate: Decachlorobiphenyl	0.0170		mg/kg wet	0.02500	68	30-150
Surrogate: Decachlorobiphenyl [2C]	0.0197		mg/kg wet	0.02500	79	30-150
Surrogate: Tetrachloro-m-xylene	0.0196		mg/kg wet	0.02500	78	30-150
Surrogate: Tetrachloro-m-xylene [2C]	0.0255		mg/kg wet	0.02500	102	30-150

LCS

Aroclor 1016	0.5	0.05	mg/kg wet	0.5000	96	40-140
Aroclor 1260	0.5	0.05	mg/kg wet	0.5000	100	40-140

Surrogate: Decachlorobiphenyl	0.0193		mg/kg wet	0.02500	77	30-150
Surrogate: Decachlorobiphenyl [2C]	0.0220		mg/kg wet	0.02500	88	30-150
Surrogate: Tetrachloro-m-xylene	0.0217		mg/kg wet	0.02500	87	30-150
Surrogate: Tetrachloro-m-xylene [2C]	0.0251		mg/kg wet	0.02500	101	30-150

LCS Dup

Aroclor 1016	0.5	0.05	mg/kg wet	0.5000	97	40-140	0.9	20
Aroclor 1260	0.5	0.05	mg/kg wet	0.5000	101	40-140	0.9	20

Surrogate: Decachlorobiphenyl	0.0193		mg/kg wet	0.02500	77	30-150
Surrogate: Decachlorobiphenyl [2C]	0.0218		mg/kg wet	0.02500	87	30-150
Surrogate: Tetrachloro-m-xylene	0.0218		mg/kg wet	0.02500	87	30-150
Surrogate: Tetrachloro-m-xylene [2C]	0.0250		mg/kg wet	0.02500	100	30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services

Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507735

Notes and Definitions

U	Analyte included in the analysis, but not detected
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes.
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507735

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
<http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls>

Massachusetts Potable and Non Potable Water: M-RI002
<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

Sample and Cooler Receipt Checklist

Client: Strategic Environmental Services

Client Project ID: _____

Shipped/Delivered Via: ESS CourierESS Project ID: 15070735Date Project Due: 8/7/15Days For Project: 5 Day**Items to be checked upon receipt:**

1. Air Bill Manifest Present? ☐ * No
- Air No.: _____
2. Were Custody Seals Present? ☐ No
3. Were Custody Seals Intact? ☐ N/A
4. Is Radiation count < 100 CPM? ☐ Yes
5. Is a cooler present? ☐ Yes
- Cooler Temp: 4.1
- Iced With: Ice
6. Was COC included with samples? ☐ Yes
7. Was COC signed and dated by client? ☐ Yes
8. Does the COC match the sample ☐ Yes
9. Is COC complete and correct? ☐ Yes
10. Are the samples properly preserved? ☐ Yes
11. Proper sample containers used? ☐ Yes
12. Any air bubbles in the VOA vials? ☐ N/A
13. Holding times exceeded? ☐ No
14. Sufficient sample volumes? ☐ Yes
15. Any Subcontracting needed? ☐ No
16. Are ESS labels on correct containers? ☒ Yes ☐ No
17. Were samples received intact? ☒ Yes ☐ No
- ESS Sample IDs: _____
- Sub Lab: _____
- Analysis: _____
- TAT: _____
18. Was there need to call project manager to discuss status? If yes, please explain.
- _____
- _____
- _____

Who was called?: _____

By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP

Completed By: [Signature]Date/Time: 7/31/15 18:35Reviewed By: [Signature]Date/Time: 18:52

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston RI 02910-2211

Tel. (401)461-7181 Fax (401)461-4486

www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab #

1507731

Turn Time ☒ Standard Other _____

Regulatory State: MA RI CT NH NJ NY ME Other _____

Is this project for any of the following: (please circle)

MA-MCP Navy USACE CT DEP Other _____

Reporting Limits - EPA < 1 ppm

Electronic Deliverables *Excel Access PDF

Co. Name STRATEGIC ENVIRONMENTAL

Project # 15-0515

Project Name POLLOCK ELEMENTARY

Contact Person

Ross Hartman

Proj. Location

LOUISIANA

Address

362 POTJAM Hill RD

City, State

SUTTON MS

Zip

01590

PO #

Tel.

email:

Analysis

PCBS

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container										
1	3/30/15	13:00	G		S-1		1	AG		X									
2	7/30/15	13:00	G		S-2		1	AG		X									

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ☒ Yes ☐ No

Internal Use Only

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAc2, 9-_____

Seals Intact ☐ Yes ☐ No NA: _____

☒ Pickup

Sampled by: BR

Cooler Temperature: 4.13.9

2-21-15 ALJ Technician

Comments:

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)



ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

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CERTIFICATE OF ANALYSIS

Ross Hartman
Strategic Environmental Services
362 Putnam Hill Road
Sutton, MA 01590

RE: Pollock Elementary (15-0515)
ESS Laboratory Work Order Number: 1507730

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED

By ESS Laboratory at 12:53 pm, Aug 07, 2015

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



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BAL Laboratory
*The Microbiology Division
of Thielsch Engineering, Inc.*



CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507730

SAMPLE RECEIPT

The following samples were received on July 31, 2015 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	Sample Name	Matrix	Analysis
1507730-01	A	Solid	8082A
1507730-02	W-1	Wipe	8082A
1507730-03	B	Solid	8082A
1507730-04	W-2	Wipe	8082A
1507730-05	C	Solid	8082A
1507730-06	D	Solid	8082A
1507730-07	E	Solid	8082A
1507730-08	W-4	Wipe	8082A
1507730-09	F	Solid	8082A
1507730-10	G	Solid	8082A
1507730-11	H	Solid	8082A
1507730-12	I	Solid	8082A
1507730-13	J	Solid	8082A
1507730-14	K	Solid	8082A
1507730-15	W-5	Wipe	8082A
1507730-16	W-6	Wipe	8082A
1507730-17	W-7	Wipe	8082A
1507730-18	W-8	Wipe	8082A
1507730-19	W-9	Wipe	8082A
1507730-20	W-10	Wipe	8082A
1507730-21	W-11	Wipe	8082A
1507730-22	W-3	Wipe	8082A



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BAL Laboratory
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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507730

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

[Definitions of Quality Control Parameters](#)

[Semivolatile Organics Internal Standard Information](#)

[Semivolatile Organics Surrogate Information](#)

[Volatile Organics Internal Standard Information](#)

[Volatile Organics Surrogate Information](#)

[EPH and VPH Alkane Lists](#)



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507730

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015D - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



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BAL Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: A
Date Sampled: 07/30/15 09:55
Percent Solids: 100
Initial Volume: 7.21
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-01
Sample Matrix: Solid
Units: mg/kg dry
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.1)		8082A		1	08/05/15 5:53		CH50308
Aroclor 1221	ND (0.1)		8082A		1	08/05/15 5:53		CH50308
Aroclor 1232	ND (0.1)		8082A		1	08/05/15 5:53		CH50308
Aroclor 1242	ND (0.1)		8082A		1	08/05/15 5:53		CH50308
Aroclor 1248	ND (0.1)		8082A		1	08/05/15 5:53		CH50308
Aroclor 1254	0.8 (0.1)		8082A		1	08/05/15 5:53		CH50308
Aroclor 1260	0.3 (0.1)		8082A		1	08/05/15 5:53		CH50308
Aroclor 1262	ND (0.1)		8082A		1	08/05/15 5:53		CH50308
Aroclor 1268	ND (0.1)		8082A		1	08/05/15 5:53		CH50308

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	103 %		30-150
Surrogate: Decachlorobiphenyl [2C]	98 %		30-150
Surrogate: Tetrachloro-m-xylene	111 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	101 %		30-150



ESS Laboratory

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BAL Laboratory

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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-1
Date Sampled: 07/30/15 09:55
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-02
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (1.0)		8082A		1	08/05/15 6:12		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/05/15 6:12		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/05/15 6:12		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/05/15 6:12		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/05/15 6:12		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/05/15 6:12		CH50323
Aroclor 1260	2.6 (1.0)		8082A		1	08/05/15 6:12		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/05/15 6:12		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/05/15 6:12		CH50323

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	79 %		30-150
Surrogate: Decachlorobiphenyl [2C]	76 %		30-150
Surrogate: Tetrachloro-m-xylene	85 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	76 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: B
Date Sampled: 07/30/15 10:00
Percent Solids: 100
Initial Volume: 10.1
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-03
Sample Matrix: Solid
Units: mg/kg dry
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.1)		8082A		1	08/05/15 6:31		CH50308
Aroclor 1221	ND (0.1)		8082A		1	08/05/15 6:31		CH50308
Aroclor 1232	ND (0.1)		8082A		1	08/05/15 6:31		CH50308
Aroclor 1242	ND (0.1)		8082A		1	08/05/15 6:31		CH50308
Aroclor 1248	ND (0.1)		8082A		1	08/05/15 6:31		CH50308
Aroclor 1254	0.9 (0.1)		8082A		1	08/05/15 6:31		CH50308
Aroclor 1260	1.7 (0.1)		8082A		1	08/05/15 6:31		CH50308
Aroclor 1262	ND (0.1)		8082A		1	08/05/15 6:31		CH50308
Aroclor 1268	ND (0.1)		8082A		1	08/05/15 6:31		CH50308

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	101 %		30-150
Surrogate: Decachlorobiphenyl [2C]	92 %		30-150
Surrogate: Tetrachloro-m-xylene	98 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	86 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-2
Date Sampled: 07/30/15 10:10
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-04
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (1.0)		8082A		1	08/05/15 6:50		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/05/15 6:50		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/05/15 6:50		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/05/15 6:50		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/05/15 6:50		CH50323
Aroclor 1254	8.7 (1.0)		8082A		1	08/05/15 6:50		CH50323
Aroclor 1260	24.0 (5.0)		8082A		5	08/05/15 23:04		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/05/15 6:50		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/05/15 6:50		CH50323

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	98 %		30-150
Surrogate: Decachlorobiphenyl [2C]	93 %		30-150
Surrogate: Tetrachloro-m-xylene	105 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	94 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: C
Date Sampled: 07/30/15 10:15
Percent Solids: 100
Initial Volume: 10
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-05
Sample Matrix: Solid
Units: mg/kg dry
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.1)		8082A		1	08/05/15 7:09		CH50308
Aroclor 1221	ND (0.1)		8082A		1	08/05/15 7:09		CH50308
Aroclor 1232	ND (0.1)		8082A		1	08/05/15 7:09		CH50308
Aroclor 1242	ND (0.1)		8082A		1	08/05/15 7:09		CH50308
Aroclor 1248	ND (0.1)		8082A		1	08/05/15 7:09		CH50308
Aroclor 1254	1.2 (0.1)		8082A		1	08/05/15 7:09		CH50308
Aroclor 1260	1.8 (0.1)		8082A		1	08/05/15 7:09		CH50308
Aroclor 1262	ND (0.1)		8082A		1	08/05/15 7:09		CH50308
Aroclor 1268	ND (0.1)		8082A		1	08/05/15 7:09		CH50308

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	99 %		30-150
Surrogate: Decachlorobiphenyl [2C]	94 %		30-150
Surrogate: Tetrachloro-m-xylene	110 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	99 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: D
Date Sampled: 07/30/15 10:15
Percent Solids: 100
Initial Volume: 10
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-06
Sample Matrix: Solid
Units: mg/kg dry
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.1)		8082A		1	08/05/15 7:28		CH50308
Aroclor 1221	ND (0.1)		8082A		1	08/05/15 7:28		CH50308
Aroclor 1232	ND (0.1)		8082A		1	08/05/15 7:28		CH50308
Aroclor 1242	ND (0.1)		8082A		1	08/05/15 7:28		CH50308
Aroclor 1248	ND (0.1)		8082A		1	08/05/15 7:28		CH50308
Aroclor 1254	5.8 (0.5)		8082A		5	08/05/15 23:22		CH50308
Aroclor 1260	2.5 (0.5)		8082A		5	08/05/15 23:22		CH50308
Aroclor 1262	ND (0.1)		8082A		1	08/05/15 7:28		CH50308
Aroclor 1268	ND (0.1)		8082A		1	08/05/15 7:28		CH50308

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	99 %		30-150
Surrogate: Decachlorobiphenyl [2C]	94 %		30-150
Surrogate: Tetrachloro-m-xylene	101 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	92 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: E
Date Sampled: 07/30/15 10:20
Percent Solids: 100
Initial Volume: 10
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-07
Sample Matrix: Solid
Units: mg/kg dry
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.1)		8082A		1	08/05/15 7:47		CH50308
Aroclor 1221	ND (0.1)		8082A		1	08/05/15 7:47		CH50308
Aroclor 1232	ND (0.1)		8082A		1	08/05/15 7:47		CH50308
Aroclor 1242	ND (0.1)		8082A		1	08/05/15 7:47		CH50308
Aroclor 1248	ND (0.1)		8082A		1	08/05/15 7:47		CH50308
Aroclor 1254	1.0 (0.1)		8082A		1	08/05/15 7:47		CH50308
Aroclor 1260	0.5 (0.1)		8082A		1	08/05/15 7:47		CH50308
Aroclor 1262	ND (0.1)		8082A		1	08/05/15 7:47		CH50308
Aroclor 1268	ND (0.1)		8082A		1	08/05/15 7:47		CH50308

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	86 %		30-150
Surrogate: Decachlorobiphenyl [2C]	81 %		30-150
Surrogate: Tetrachloro-m-xylene	88 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	78 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-4
Date Sampled: 07/30/15 10:25
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-08
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (1.0)		8082A		1	08/05/15 8:06		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/05/15 8:06		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/05/15 8:06		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/05/15 8:06		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/05/15 8:06		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/05/15 8:06		CH50323
Aroclor 1260	ND (1.0)		8082A		1	08/05/15 8:06		CH50323
Aroclor 1262	4.5 (1.0)		8082A		1	08/05/15 8:06		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/05/15 8:06		CH50323

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	96 %		30-150
Surrogate: Decachlorobiphenyl [2C]	91 %		30-150
Surrogate: Tetrachloro-m-xylene	105 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	93 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: F
Date Sampled: 07/30/15 10:25
Percent Solids: 99
Initial Volume: 10
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-09
Sample Matrix: Solid
Units: mg/kg dry
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.1)		8082A		1	08/05/15 8:24		CH50308
Aroclor 1221	ND (0.1)		8082A		1	08/05/15 8:24		CH50308
Aroclor 1232	ND (0.1)		8082A		1	08/05/15 8:24		CH50308
Aroclor 1242	ND (0.1)		8082A		1	08/05/15 8:24		CH50308
Aroclor 1248	ND (0.1)		8082A		1	08/05/15 8:24		CH50308
Aroclor 1254	1.4 (0.1)		8082A		1	08/05/15 8:24		CH50308
Aroclor 1260	ND (0.1)		8082A		1	08/05/15 8:24		CH50308
Aroclor 1262	1.8 (0.1)		8082A		1	08/05/15 8:24		CH50308
Aroclor 1268	ND (0.1)		8082A		1	08/05/15 8:24		CH50308

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	96 %		30-150
Surrogate: Decachlorobiphenyl [2C]	92 %		30-150
Surrogate: Tetrachloro-m-xylene	102 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	90 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: G
Date Sampled: 07/30/15 10:30
Percent Solids: 100
Initial Volume: 10
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-10
Sample Matrix: Solid
Units: mg/kg dry
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.1)		8082A		1	08/05/15 8:43		CH50308
Aroclor 1221	ND (0.1)		8082A		1	08/05/15 8:43		CH50308
Aroclor 1232	ND (0.1)		8082A		1	08/05/15 8:43		CH50308
Aroclor 1242	ND (0.1)		8082A		1	08/05/15 8:43		CH50308
Aroclor 1248	ND (0.1)		8082A		1	08/05/15 8:43		CH50308
Aroclor 1254	10.5 (1.0)		8082A		10	08/05/15 23:41		CH50308
Aroclor 1260	ND (0.1)		8082A		1	08/05/15 8:43		CH50308
Aroclor 1262	15.8 (1.0)		8082A		10	08/05/15 23:41		CH50308
Aroclor 1268	ND (0.1)		8082A		1	08/05/15 8:43		CH50308

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	114 %		30-150
Surrogate: Decachlorobiphenyl [2C]	114 %		30-150
Surrogate: Tetrachloro-m-xylene	104 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	93 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: H
Date Sampled: 07/30/15 10:30
Percent Solids: 100
Initial Volume: 7.4
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-11
Sample Matrix: Solid
Units: mg/kg dry
Analyst: JXS
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.1)		8082A		1	08/05/15 9:02		CH50308
Aroclor 1221	ND (0.1)		8082A		1	08/05/15 9:02		CH50308
Aroclor 1232	ND (0.1)		8082A		1	08/05/15 9:02		CH50308
Aroclor 1242	ND (0.1)		8082A		1	08/05/15 9:02		CH50308
Aroclor 1248	ND (0.1)		8082A		1	08/05/15 9:02		CH50308
Aroclor 1254	6.3 (0.7)		8082A		5	08/06/15 0:00		CH50308
Aroclor 1260	ND (0.1)		8082A		1	08/05/15 9:02		CH50308
Aroclor 1262	11.4 (0.7)		8082A		5	08/06/15 0:00		CH50308
Aroclor 1268	ND (0.1)		8082A		1	08/05/15 9:02		CH50308

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	77 %		30-150
Surrogate: Decachlorobiphenyl [2C]	75 %		30-150
Surrogate: Tetrachloro-m-xylene	103 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	88 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: I
Date Sampled: 07/30/15 10:35
Percent Solids: 100
Initial Volume: 5.25
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-12
Sample Matrix: Solid
Units: mg/kg dry
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.2)		8082A		1	08/04/15 20:21		CH50308
Aroclor 1221	ND (0.2)		8082A		1	08/04/15 20:21		CH50308
Aroclor 1232	ND (0.2)		8082A		1	08/04/15 20:21		CH50308
Aroclor 1242	ND (0.2)		8082A		1	08/04/15 20:21		CH50308
Aroclor 1248	ND (0.2)		8082A		1	08/04/15 20:21		CH50308
Aroclor 1254	0.7 (0.2)		8082A		1	08/04/15 20:21		CH50308
Aroclor 1260	0.6 (0.2)		8082A		1	08/04/15 20:21		CH50308
Aroclor 1262	ND (0.2)		8082A		1	08/04/15 20:21		CH50308
Aroclor 1268	ND (0.2)		8082A		1	08/04/15 20:21		CH50308

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	75 %		30-150
Surrogate: Decachlorobiphenyl [2C]	83 %		30-150
Surrogate: Tetrachloro-m-xylene	81 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	96 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: J
Date Sampled: 07/30/15 10:40
Percent Solids: 100
Initial Volume: 8.6l
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-13
Sample Matrix: Solid
Units: mg/kg dry
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.1)		8082A		1	08/04/15 22:17		CH50309
Aroclor 1221	ND (0.1)		8082A		1	08/04/15 22:17		CH50309
Aroclor 1232	ND (0.1)		8082A		1	08/04/15 22:17		CH50309
Aroclor 1242	ND (0.1)		8082A		1	08/04/15 22:17		CH50309
Aroclor 1248	ND (0.1)		8082A		1	08/04/15 22:17		CH50309
Aroclor 1254	0.1 (0.1)		8082A		1	08/04/15 22:17		CH50309
Aroclor 1260	ND (0.1)		8082A		1	08/04/15 22:17		CH50309
Aroclor 1262	ND (0.1)		8082A		1	08/04/15 22:17		CH50309
Aroclor 1268	ND (0.1)		8082A		1	08/04/15 22:17		CH50309

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	82 %		30-150
Surrogate: Decachlorobiphenyl [2C]	91 %		30-150
Surrogate: Tetrachloro-m-xylene	84 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	85 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: K
Date Sampled: 07/30/15 10:40
Percent Solids: 100
Initial Volume: 10
Final Volume: 10
Extraction Method: 3540C

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-14
Sample Matrix: Solid
Units: mg/kg dry
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.1)		8082A		1	08/04/15 22:36		CH50309
Aroclor 1221	ND (0.1)		8082A		1	08/04/15 22:36		CH50309
Aroclor 1232	ND (0.1)		8082A		1	08/04/15 22:36		CH50309
Aroclor 1242	ND (0.1)		8082A		1	08/04/15 22:36		CH50309
Aroclor 1248	ND (0.1)		8082A		1	08/04/15 22:36		CH50309
Aroclor 1254	ND (0.1)		8082A		1	08/04/15 22:36		CH50309
Aroclor 1260	0.5 (0.1)		8082A		1	08/04/15 22:36		CH50309
Aroclor 1262	ND (0.1)		8082A		1	08/04/15 22:36		CH50309
Aroclor 1268	ND (0.1)		8082A		1	08/04/15 22:36		CH50309

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	82 %		30-150
Surrogate: Decachlorobiphenyl [2C]	93 %		30-150
Surrogate: Tetrachloro-m-xylene	89 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	105 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-5
Date Sampled: 07/30/15 10:45
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-15
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		8082A		1	08/04/15 20:41		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/04/15 20:41		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/04/15 20:41		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/04/15 20:41		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/04/15 20:41		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/04/15 20:41		CH50323
Aroclor 1260	37.3 (5.0)		8082A		5	08/05/15 19:56		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/04/15 20:41		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/04/15 20:41		CH50323

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	78 %		30-150
Surrogate: Decachlorobiphenyl [2C]	87 %		30-150
Surrogate: Tetrachloro-m-xylene	84 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	100 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-6
Date Sampled: 07/30/15 10:45
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-16
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (1.0)		8082A		1	08/04/15 21:00		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/04/15 21:00		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/04/15 21:00		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/04/15 21:00		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/04/15 21:00		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/04/15 21:00		CH50323
Aroclor 1260	1.6 (1.0)		8082A		1	08/04/15 21:00		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/04/15 21:00		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/04/15 21:00		CH50323

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	81 %		30-150
Surrogate: Decachlorobiphenyl [2C]	90 %		30-150
Surrogate: Tetrachloro-m-xylene	90 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	106 %		30-150



CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-7
Date Sampled: 07/30/15 10:45
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-17
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (1.0)		8082A		1	08/04/15 21:19		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/04/15 21:19		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/04/15 21:19		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/04/15 21:19		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/04/15 21:19		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/04/15 21:19		CH50323
Aroclor 1260	9.2 (1.0)		8082A		1	08/04/15 21:19		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/04/15 21:19		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/04/15 21:19		CH50323

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	81 %		30-150
Surrogate: Decachlorobiphenyl [2C]	89 %		30-150
Surrogate: Tetrachloro-m-xylene	88 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	105 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-8
Date Sampled: 07/30/15 10:50
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-18
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (1.0)		8082A		1	08/04/15 21:38		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/04/15 21:38		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/04/15 21:38		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/04/15 21:38		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/04/15 21:38		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/04/15 21:38		CH50323
Aroclor 1260	13.5 (1.0)		8082A		1	08/04/15 21:38		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/04/15 21:38		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/04/15 21:38		CH50323

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	80 %		30-150
Surrogate: Decachlorobiphenyl [2C]	89 %		30-150
Surrogate: Tetrachloro-m-xylene	90 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	107 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-9
Date Sampled: 07/30/15 10:50
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-19
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (1.0)		8082A		1	08/04/15 21:58		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/04/15 21:58		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/04/15 21:58		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/04/15 21:58		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/04/15 21:58		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/04/15 21:58		CH50323
Aroclor 1260	5.1 (1.0)		8082A		1	08/04/15 21:58		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/04/15 21:58		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/04/15 21:58		CH50323

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	83 %		30-150
Surrogate: Decachlorobiphenyl [2C]	93 %		30-150
Surrogate: Tetrachloro-m-xylene	92 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	109 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-10
Date Sampled: 07/30/15 10:50
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-20
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (1.0)		8082A		1	08/04/15 23:33		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/04/15 23:33		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/04/15 23:33		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/04/15 23:33		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/04/15 23:33		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/04/15 23:33		CH50323
Aroclor 1260	ND (1.0)		8082A		1	08/04/15 23:33		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/04/15 23:33		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/04/15 23:33		CH50323

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	87 %		30-150
Surrogate: Decachlorobiphenyl [2C]	97 %		30-150
Surrogate: Tetrachloro-m-xylene	92 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	109 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-11
Date Sampled: 07/30/15 10:55
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-21
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (1.0)		8082A		1	08/04/15 23:52		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/04/15 23:52		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/04/15 23:52		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/04/15 23:52		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/04/15 23:52		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/04/15 23:52		CH50323
Aroclor 1260	2.1 (1.0)		8082A		1	08/04/15 23:52		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/04/15 23:52		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/04/15 23:52		CH50323

	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>
Surrogate: Decachlorobiphenyl	81 %		30-150
Surrogate: Decachlorobiphenyl [2C]	91 %		30-150
Surrogate: Tetrachloro-m-xylene	90 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	107 %		30-150



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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary
Client Sample ID: W-3
Date Sampled: 07/30/15 00:00
Percent Solids: N/A
Initial Volume: 1
Final Volume: 10
Extraction Method: 3540

ESS Laboratory Work Order: 1507730
ESS Laboratory Sample ID: 1507730-22
Sample Matrix: Wipe
Units: ug/Wipe
Analyst: TJ
Prepared: 8/3/15 18:35

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (1.0)		8082A		1	08/05/15 0:11		CH50323
Aroclor 1221	ND (1.0)		8082A		1	08/05/15 0:11		CH50323
Aroclor 1232	ND (1.0)		8082A		1	08/05/15 0:11		CH50323
Aroclor 1242	ND (1.0)		8082A		1	08/05/15 0:11		CH50323
Aroclor 1248	ND (1.0)		8082A		1	08/05/15 0:11		CH50323
Aroclor 1254	ND (1.0)		8082A		1	08/05/15 0:11		CH50323
Aroclor 1260	ND (1.0)		8082A		1	08/05/15 0:11		CH50323
Aroclor 1262	ND (1.0)		8082A		1	08/05/15 0:11		CH50323
Aroclor 1268	ND (1.0)		8082A		1	08/05/15 0:11		CH50323

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	77 %		30-150
Surrogate: Decachlorobiphenyl [2C]	87 %		30-150
Surrogate: Tetrachloro-m-xylene	81 %		30-150
Surrogate: Tetrachloro-m-xylene [2C]	97 %		30-150



CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507730

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										

Batch CH50308 - 3540C

Blank

Aroclor 1016	ND	0.05	mg/kg wet
Aroclor 1221	ND	0.05	mg/kg wet
Aroclor 1232	ND	0.05	mg/kg wet
Aroclor 1242	ND	0.05	mg/kg wet
Aroclor 1248	ND	0.05	mg/kg wet
Aroclor 1254	ND	0.05	mg/kg wet
Aroclor 1260	ND	0.05	mg/kg wet
Aroclor 1262	ND	0.05	mg/kg wet
Aroclor 1268	ND	0.05	mg/kg wet

Surrogate: Decachlorobiphenyl	0.0236		mg/kg wet	0.02500	94	30-150
Surrogate: Decachlorobiphenyl [2C]	0.0234		mg/kg wet	0.02500	94	30-150
Surrogate: Tetrachloro-m-xylene	0.0247		mg/kg wet	0.02500	99	30-150
Surrogate: Tetrachloro-m-xylene [2C]	0.0225		mg/kg wet	0.02500	90	30-150

LCS

Aroclor 1016	0.5	0.05	mg/kg wet	0.5000	97	40-140
Aroclor 1260	0.5	0.05	mg/kg wet	0.5000	97	40-140
Surrogate: Decachlorobiphenyl	0.0245		mg/kg wet	0.02500	98	30-150
Surrogate: Decachlorobiphenyl [2C]	0.0233		mg/kg wet	0.02500	93	30-150
Surrogate: Tetrachloro-m-xylene	0.0258		mg/kg wet	0.02500	103	30-150
Surrogate: Tetrachloro-m-xylene [2C]	0.0236		mg/kg wet	0.02500	94	30-150

LCS Dup

Aroclor 1016	0.5	0.05	mg/kg wet	0.5000	91	40-140	6	20
Aroclor 1260	0.5	0.05	mg/kg wet	0.5000	97	40-140	0.7	20
Surrogate: Decachlorobiphenyl	0.0243		mg/kg wet	0.02500	97	30-150		
Surrogate: Decachlorobiphenyl [2C]	0.0229		mg/kg wet	0.02500	92	30-150		
Surrogate: Tetrachloro-m-xylene	0.0255		mg/kg wet	0.02500	102	30-150		
Surrogate: Tetrachloro-m-xylene [2C]	0.0239		mg/kg wet	0.02500	95	30-150		

Batch CH50309 - 3540C

Blank

Aroclor 1016	ND	0.05	mg/kg wet
Aroclor 1221	ND	0.05	mg/kg wet
Aroclor 1232	ND	0.05	mg/kg wet
Aroclor 1242	ND	0.05	mg/kg wet
Aroclor 1248	ND	0.05	mg/kg wet
Aroclor 1254	ND	0.05	mg/kg wet
Aroclor 1260	ND	0.05	mg/kg wet
Aroclor 1262	ND	0.05	mg/kg wet
Aroclor 1268	ND	0.05	mg/kg wet

Surrogate: Decachlorobiphenyl	0.0170		mg/kg wet	0.02500	68	30-150
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CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507730

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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8082A Polychlorinated Biphenyls (PCB)

Batch CH50309 - 3540C

Surrogate: Decachlorobiphenyl	0.0197		mg/kg wet	0.02500		79	30-150			
Surrogate: Tetrachloro-m-xylene	0.0196		mg/kg wet	0.02500		78	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0255		mg/kg wet	0.02500		102	30-150			

LCS

Aroclor 1016	0.5	0.05	mg/kg wet	0.5000		96	40-140			
Aroclor 1260	0.5	0.05	mg/kg wet	0.5000		100	40-140			

Surrogate: Decachlorobiphenyl	0.0193		mg/kg wet	0.02500		77	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0220		mg/kg wet	0.02500		88	30-150			
Surrogate: Tetrachloro-m-xylene	0.0217		mg/kg wet	0.02500		87	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0251		mg/kg wet	0.02500		101	30-150			

LCS Dup

Aroclor 1016	0.5	0.05	mg/kg wet	0.5000		97	40-140	0.9	20	
Aroclor 1260	0.5	0.05	mg/kg wet	0.5000		101	40-140	0.9	20	

Surrogate: Decachlorobiphenyl	0.0193		mg/kg wet	0.02500		77	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.0218		mg/kg wet	0.02500		87	30-150			
Surrogate: Tetrachloro-m-xylene	0.0218		mg/kg wet	0.02500		87	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.0250		mg/kg wet	0.02500		100	30-150			

Batch CH50323 - 3540

Blank

Aroclor 1016	ND	1.0	ug/Wipe							
Aroclor 1221	ND	1.0	ug/Wipe							
Aroclor 1232	ND	1.0	ug/Wipe							
Aroclor 1242	ND	1.0	ug/Wipe							
Aroclor 1248	ND	1.0	ug/Wipe							
Aroclor 1254	ND	1.0	ug/Wipe							
Aroclor 1260	ND	1.0	ug/Wipe							
Aroclor 1262	ND	1.0	ug/Wipe							
Aroclor 1268	ND	1.0	ug/Wipe							

Surrogate: Decachlorobiphenyl	0.471		ug/Wipe	0.5000		94	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.468		ug/Wipe	0.5000		94	30-150			
Surrogate: Tetrachloro-m-xylene	0.494		ug/Wipe	0.5000		99	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.450		ug/Wipe	0.5000		90	30-150			

LCS

Aroclor 1016	9.7	1.0	ug/Wipe	10.00		97	40-140			
Aroclor 1260	9.7	1.0	ug/Wipe	10.00		97	40-140			

Surrogate: Decachlorobiphenyl	0.490		ug/Wipe	0.5000		98	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.466		ug/Wipe	0.5000		93	30-150			
Surrogate: Tetrachloro-m-xylene	0.516		ug/Wipe	0.5000		103	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.472		ug/Wipe	0.5000		94	30-150			

LCS Dup

185 Frances Avenue, Cranston, RI 02910-2211

Tel: 401-461-7181

Fax: 401-461-4486

<http://www.ESSLaboratory.com>

Dependability ♦

Quality ♦

Service ♦



ESS Laboratory
Division of Thielsch Engineering, Inc.

BAL Laboratory
The Microbiology Division
of Thielsch Engineering, Inc.



CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507730

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

8082A Polychlorinated Biphenyls (PCB)

Batch CH50323 - 3540

Aroclor 1016	9.1	1.0	ug/Wipe	10.00		91	40-140	6	20	
Aroclor 1260	9.7	1.0	ug/Wipe	10.00		97	40-140	0.7	20	
Surrogate: Decachlorobiphenyl	0.485		ug/Wipe	0.5000		97	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.458		ug/Wipe	0.5000		92	30-150			
Surrogate: Tetrachloro-m-xylene	0.510		ug/Wipe	0.5000		102	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.477		ug/Wipe	0.5000		95	30-150			



ESS Laboratory

Division of Thielsch Engineering, Inc.

BAL Laboratory

*The Microbiology Division
of Thielsch Engineering, Inc.*



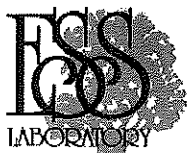
CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507730

Notes and Definitions

U	Analyte included in the analysis, but not detected
D	Diluted.
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report



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BAL Laboratory
*The Microbiology Division
of Thielsch Engineering, Inc.*



CERTIFICATE OF ANALYSIS

Client Name: Strategic Environmental Services
Client Project ID: Pollock Elementary

ESS Laboratory Work Order: 1507730

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179
<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002
<http://www.maine.gov/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls>

Massachusetts Potable and Non Potable Water: M-RI002
<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

Sample and Cooler Receipt Checklist

Client: Strategic Environmental Services
 Client Project ID: _____
 Shipped/Delivered Via: ESS Courier

ESS Project ID: 15070730
 Date Project Due: 8/7/15
 Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?

☒ * No

Air No.:

2. Were Custody Seals Present?

☐ No

3. Were Custody Seals Intact?

☐ N/A

4. Is Radiation count < 100 CPM?

☐ Yes

5. Is a cooler present?

☐ YesCooler Temp: 4.3Iced With: Icepacks

6. Was COC included with samples?

☐ Yes

7. Was COC signed and dated by client?

☐ Yes

8. Does the COC match the sample

☐ Yes

9. Is COC complete and correct?

☐ Yes

10. Are the samples properly preserved?

☐ Yes

11. Proper sample containers used?

☐ Yes

12. Any air bubbles in the VOA vials?

☐ N/A

13. Holding times exceeded?

☐ No

14. Sufficient sample volumes?

☐ Yes

15. Any Subcontracting needed?

☐ No

16. Are ESS labels on correct containers?

☒ Yes ☐ No

17. Were samples received intact?

☒ Yes ☐ No

ESS Sample IDs: _____

Sub Lab: _____

Analysis: _____

TAT: _____

18. Was there need to call project manager to discuss status? If yes, please explain.

Who was called?: _____

By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	4 oz Soil Jar	1	NP
2	Yes	4 oz Soil Jar	1	NP
3	Yes	4 oz Soil Jar	1	NP
4	Yes	4 oz Soil Jar	1	NP
5	Yes	4 oz Soil Jar	1	NP
6	Yes	4 oz Soil Jar	1	NP
7	Yes	4 oz Soil Jar	1	NP
8	Yes	4 oz Soil Jar	1	NP
9	Yes	4 oz Soil Jar	1	NP
10	Yes	4 oz Soil Jar	1	NP
11	Yes	4 oz Soil Jar	1	NP
12	Yes	4 oz Soil Jar	1	NP
13	Yes	4 oz Soil Jar	1	NP
14	Yes	4 oz Soil Jar	1	NP
15	Yes	4 oz Soil Jar	1	NP
16	Yes	4 oz Soil Jar	1	NP
17	Yes	4 oz Soil Jar	1	NP
18	Yes	4 oz Soil Jar	1	NP
19	Yes	4 oz Soil Jar	1	NP
20	Yes	4 oz Soil Jar	1	NP
21	Yes	4 oz Soil Jar	1	NP
22	Yes	4 oz Soil Jar	1	NP

Completed By: MGKDate/Time: 7/31/15 1804Reviewed By: NAK/oscDate/Time: 7/31/15 1835

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston RI 02910-2211

Tel. (401)461-7181 Fax (401)461-4486

www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time	2	Standard	Other
-----------	---	----------	-------

Regulatory State: MA RI CT NH NJ NY ME Other

Is this project for any of the following: (please circle)

MA-MCP Navy USACE CT DEP Other

ESS Lab # 150030

Reporting Limits - EPA CI PPM

Electronic Deliverables *Excel Access PDF

Co. Name STRATEGIC ENVIRONMENTAL

Project # 15-0515

Project Name POLLOCK ELEMENTARY

Contact Person
ROSS HARTMAN

Proj. Location
LOUISIANA

Address	City, State
362 PUTNAM Hill RD	SUTTON

City, State
SUTTON MO

Zip
01590

PO #

Tel. _____ email: _____

email:

[illegible]

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
----------------	---	-----------------------------

Internal Use Only

Preservation Code: 1-NP, 2-HCl, 3-H₂SO₄, 4-HNO₃, 5-NaOH, 6-MeOH, 7-Ascorbic Acid, 8-ZnAct, 9-

Seals Intact Yes No NA:

~~NY~~ Pickup

Sampled by : *DD*

Cooler Temperature: 4.13.9 = 21 17:01 Technician

Comments:

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Relinquished by: (Signature, Date & Time)

Received by: {Signature, Date & Time}

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were

Please fax to the laboratory all changes to Chain of Custody

collected in accordance with MADEP CAM VIIA:

Report Method Blank & Laboratory Control Sample Results

ESS Laboratory

CHAIN OF CUSTODY

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston RI 02910-2211

Tel. (401)461-7181 Fax (401)461-4486

www.esslaboratory.com

ESS Lab # 1507730

Reporting Limits - EPA - CA ppm

Electronic Deliverables *Excel Access PDF

Co. Name
STRATEGIC ENVIRONMENTALProject #
15-0515Project Name
POLLOCK F/MENTARYContact Person
ROSS HARTMANProj. Location
LOUISIANAAddress
362 PUTNAM HILL RDCity, State
SUTTON MSZip
01590

PO #

Tel.

email:

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container	Analysis									
08	7/30/15	10:25	G		W-4		1	AG		X									
09	7/30/15	10:25	G		F		1	AG		X									
10	7/30/15	10:30	G		G		1	AG		X									
11	7/30/15	10:30	G		H		1	AG		X									
12	7/30/15	10:35	G		I		1	AG		X									
13	7/30/15	10:40	G		J		1	AG		X									
14	7/30/15	10:40	G		K		1	AG		X									

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ☒ Yes ☐ No

Internal Use Only

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

Seals Intact ☐ Yes ☐ No NA: _____[☒ PickupSampled by: BLCooler Temperature: 4.639 7/31 11:06 Technician _____

Comments:

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

Relinquished by: (Signature, Date & Time)

Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

Report Method Blank & Laboratory Control Sample Results

ESS Laboratory

Division of Thielsch Engineering, Inc.

185 Frances Avenue, Cranston RI 02910-2211

Tel. (401)461-7181 Fax (401)461-4486

www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 1507730

Reporting Limits - EPA-CIPM

Electronic Deliverables *Excel Access PDF

Co. Name STRATEGIC ENVIRONMENTAL

Contact Person ROSS HARTMAN

Address 362 PUTNAM HILL RD

Tel. email:

City, State SUTTON MA

Zip 01590

PO #

Project # 15-0515

Project Name POLLACK ELEMENTARY

Proj. Location LOUISIANA

Analysis

PCB

ESS Lab ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample ID	Pres Code	# of Containers	Type of Container	Vol of Container										
15	7/30/15	10:45	G		W-5		1	AG		X									
16	7/30/15	10:45	G		W-6		1	AG		X									
17	7/30/15	10:45	G		W-7		1	AG		X									
18	7/30/15	10:50	G		W-8		1	AG		X									
19	7/30/15	10:50	G		W-9		1	AG		X									
20	7/30/15	10:50	G		W-10		1	AG		X									
21	7/30/15	10:55	G		W-11		1	AG		X									

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA Matrix: S-Soil SS-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ☒ Yes ☐ No Internal Use Only ☒ Pickup

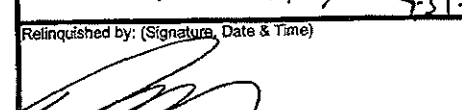
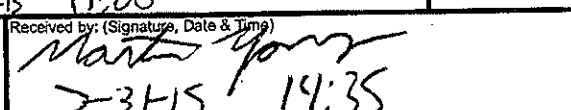
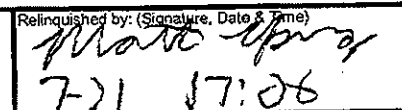
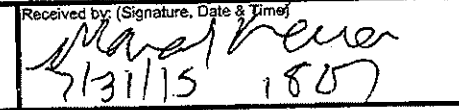
Seals Intact ☐ Yes ☐ No NA: ☐

Cooler Temperature: 41.3.9 Technician

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-

Sampled by: BR

Comments: W-3 Not on Cox 5/7/15

Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)
	 7-31-15 14:35	 7-31 17:06	 7/31/15 1807
Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)	Relinquished by: (Signature, Date & Time)	Received by: (Signature, Date & Time)

* By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VIIA

Please fax to the laboratory all changes to Chain of Custody

Report Method Blank & Laboratory Control Sample Results

Appendix D: Waste Disposal Documentation

CERTIFICATE OF RECYCLING / DISPOSAL

LEI, Inc. certifies that all waste materials accepted are recycled or disposed of in accordance with all applicable Federal, State, and Local Regulations and within all regulated time periods.

EPA ID: LAR000055467
LA0000365668

Date: 12/9/2015

Document No: 002728173GBF

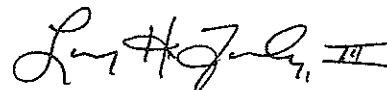
Invoice No: 55700

Qty	Description	U/M
2	PCB Contaminated Debris > 500ppm	55 gal

CERTIFICATE ISSUED TO:
ARC ABATEMENT 1, LTD
ATTN: MEREDITH FERGUSON
300 SOUTH 2ND STREET
WACO, TX 76701

ITEMS OWNED BY:
POLLUCK ELEMENTARY SCHOOL
4001 HIGHWAY 8
POLLUCK, LA 71467

On Behalf of LEI



Larry Fannaly
Vice-President, Sales & Operations

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number LAL0000		2. Page 1 of 1		3. Emergency Response Phone (1-800-424-6813)		4. Manifest Tracking Number 002728173 GBF	
5. Generator's Name and Mailing Address Petroleum Development International 8001 Highway 7 Baton Rouge, LA 70807				Generator's Site Address (if different than mailing address) 8001 Highway 7 Baton Rouge, LA 70807					
Generator's Phone: 714-335-0800				ARCAB-02					
6. Transporter 1 Company Name LAL Inc. - Baton Rouge				U.S. EPA ID Number LA0000055467					
7. Transporter 2 Company Name				U.S. EPA ID Number					
8. Designated Facility Name and Site Address LAL Inc. - Baton Rouge 48007 Highway 7 Baton Rouge, LA 70807				U.S. EPA ID Number LA0000055467					
Facility's Phone: 981-345-4334				LA0000055467					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes			
		No.	Type						
1	1. 170002, Polyethylene Glycol, 2. 170002, Polyethylene Glycol, 3. 170002, Polyethylene Glycol, 4. 170002, Polyethylene Glycol	2	D	45	M				
2									
3									
4									
14. Special Handling Instructions and Additional Information If not otherwise noted, the waste is hazardous, as defined by 40 CFR 261.2, and is not a solid waste, as defined by 40 CFR 261.2(c)(1).									
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.									
Generator's/Offor's Printed/Typed Name LAL Inc.				Signature [Signature]				Month Day Year 12 09 12	
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:									
17. Transporter Acknowledgment of Receipt of Materials									
Transporter 1 Printed/Typed Name SA - [Signature]				Signature [Signature]				Month Day Year 12 09 12	
Transporter 2 Printed/Typed Name				Signature				Month Day Year	
18. Discrepancy									
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection									
18b. Alternate Facility (or Generator) Manifest Reference Number: U.S. EPA ID Number									
Facility's Phone:									
18c. Signature of Alternate Facility (or Generator) Month Day Year									
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)									
1. 1141 2. 3. 4.									
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a									
Printed/Typed Name Chad Lee				Signature [Signature]				Month Day Year 12 12 12	

Sales, James

From: Sales, James
Sent: Wednesday, February 17, 2016 10:22 AM
To: Tisa, Kimberly
Subject: FW: Hello. I wanted to follow up on activities at the Pollock Elementary School. Do you have a status update for me?
Attachments: Pollock Elementary School PCB Source Removal Report - Final.pdf

Kim—I have this school that removed the PCB caulk and now want to deal with the contaminated brick. They want a 61 c to encapsulate the brick as an interim solution before deciding what to do about the brick. Is this something we are approving? I thought that encapsulating doesn't really work..

From: Mitchell McCrea [mailto:mmccrea@baronbudd.com]
Sent: Tuesday, February 16, 2016 4:59 PM
To: Sales, James <sales.james@epa.gov>
Cc: Elena Rojo <erojo@baronbudd.com>
Subject: RE: Hello. I wanted to follow up on activities at the Pollock Elementary School. Do you have a status update for me?

Hi, Jim. See the attached report, which has been given to the Grant Parish School District. We just received authorization from the School District to follow the recommendations outlined in Section 3.0 (see pg. 7), so would you please let me know if we can proceed with such recommendations? Thank you.

Mitchell McCrea
Baron & Budd, PC | Attorney

214.521.3605 main
214.523.6420 direct
214.498.7508 mobile

www.baronandbudd.com

Dallas | Austin | Los Angeles | Baton Rouge | New Orleans

From: Sales, James [mailto:sales.james@epa.gov]
Sent: Tuesday, February 09, 2016 12:43 PM
To: Mitchell McCrea
Subject: RE: Hello. I wanted to follow up on activities at the Pollock Elementary School. Do you have a status update for me?

Yes thank you—that would be fine

From: Mitchell McCrea [mailto:mmccrea@baronbudd.com]
Sent: Tuesday, February 09, 2016 12:42 PM
To: Sales, James <sales.james@epa.gov>
Subject: Re: Hello. I wanted to follow up on activities at the Pollock Elementary School. Do you have a status update for me?

Meeting with school district next week, so I'll have an update for you thereafter. Is that ok? All caulk has been removed.

Mitchell McCrea

Office: 214.523.6420
Cell: 214.498.7508
mmccrea@baronbudd.com

On Feb 9, 2016, at 12:34 PM, Sales, James <sales.james@epa.gov> wrote: